vatsim uk
Operations

LONDON STANSTED VMATS PART 2

EGSS

REVISION 2025/12 - EFFECTIVE 27 NOVEMBER 2025

DISTRIBUTION AND SCOPE

This manual is for controllers of Stansted Aerodrome and TC Stansted positions, containing specific and local procedures relevant to these positions. Controllers must be familiar with controlling procedures in the UK; this manual should be read in conjunction with CAP 493 (MATS Part 1) and guidance on standard UK Radiotelephony phraseology, detailed in CAP 413.

EXCLUSION OF LIABILITY

This manual is for use on the VATSIM Network only and should never be adopted for real world use.

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ACKNOWLEDGEMENTS

This document has been written and proofread by a huge wealth of people, without which the development of this document would not have been possible. On behalf of all VATSIM UK's members, this acts as an acknowledgement and thanks for their work.

DEFINITIONS

The key words "SHALL", "IS TO", "ARE TO", "MUST", "SHOULD", "MAY" are to be interpreted as described in MATS Part 1 (CAP 493).

MARKED CHANGES

Changes made since the last release are marked with a black bar, as indicated, in the left-hand margin. New text is marked in red. The changes are also described briefly in the table below.

AMENDMENT HISTORY

Revision	Effective Date	Notes
2025/12	27 November 2025	Removed LAM SIDs and updated BKY SID designators (ADC 1.3); Updated routes for flights to local airfields (ADC 1.6); Use of "link" in taxi instructions made optional (ADC 2.4.2); Updated route separation to reflect LAM SID removal (ADC 3.8); Updated departure handoff orders to remove LAM and add TC Midlands (ADC 3.10); Withdrawal of helicopter aiming point and procedures for helicopter landings on active runway (ADC 2.9, ADC 3.17 and LOW Ch 3); BARMI 2A STAR truncated and replaced by the MEGEL 1A STAR (APC 2.3.1); Amended final approach speed restriction to 165 kts until **5** NM (APC 4.2.2); Updated APC SID departure and GW/SC positioning flights wording (APC 5.6, 5.8)
2023/13	28 December 2023	Changes to NUGBO and UTAVA Agreed Levels (APC 5.6); ABBOT hold inbound course updated (APC 3.3); Filed route string to EGGW changed (ADC 1.6.2); Missed approach procedures updated with BKY VOR recalibration (ADC 3.14); Updated to 8.33 frequency spacing.
2023/08	10 August 2023	Removed level cap to EGPH/PF/PK via LIPGO (ADC 1.4); Correction of vectoring restrictions via LAPRA (APC 4.3.2.2);
2022/03	23 March 2023	Added level cap for traffic to EGFF/GD/SY and to the Dublin Group via LIPGO/VATRY (ADC 1.4); BEDEK 1N STAR replaced with SIRIC 1N (APC 3.2.1); Updated Final Approach procedures to correct separation responsibilities (APC 4.4); Updated RNP approach section to refer to RNP Z as RNP Y maintenance procedures are not used on VATSIM (APC 4.6); VRP update (throughout).
2022/12	01 December 2022	SRA approaches removed APC 4.5 removed and section renumbered; Alternative PDC options permitted;
2022/02a	08 March 2022	SID table order corrected and minor error fixed (ADC 1.3); Added table of flight level capping (ADC 1.4); Clarifying notes on transfer to TC North West for NUGBO and UTAVA departures (APC 5.6)
2022/02	24 February 2022	Updated & largely re-written into new LTMA layout. New VFR procedures for ADC and APC. New RMA and release conditions co-incident with Luton RMA changes. New buffer zone. Removal of NUGBO pre-notes and increase in separation time.
15	27 November 2016	Updated to new format; removed requirement to pass OAT to turboprops; added hand-off information for new TC East sector; Replaced BUZAD and CPT SIDs with UTAVA and NUGBO, respectively
3.13	4 February 2016	DET and LYD SID Restrictions (LAMP Phase 1a)

3.12	2 April 2016	Stansted CTA-2 Clarification, RNAV approaches added, UK FIS, Apron Width Restrictions, Holding Point Wake Turbulence Rules
3.11	18 September 2014	Heavy/Heavy Wake Requirements
3.10	29 May 2014	SID Changes in line with AIRAC 1406
3.9	4 April 2014	Wake Turbulence – low approach and go-around; Addition and clarification of Prenotes and Releases; Clarification of Buffer Zone and visual approaches; Expect late landing advisory removed; required information from pilots prior to start up; Revised Final Approach speeds; Cambridge Outbound handling; other general formatting updates
3.8	30 December 2013	Squawk Allocations, General Updates
3.7	5 March 2013	Circuit Direction, LAM release procedure
3.6	19 October 2012	Various
3.5	26 October 2011	Releases/Orders
3.4	20 August 2011	RMA Diagrams
3.3	7 May 2011	MSL Table
3.2	6 May 2011	Third Publication
2.0	24 March 2007	Second Publication
1.0	2005	First Publication

INTRODUCTION AND STRUCTURE

The Stansted virtual Manual of Air Traffic Services (vMATS) Part 2 is complementary to the MATS Part 1 (CAP493). Together, these two documents provide comprehensive instructions and information for Stansted ATS staff within VATSIM UK however TC Stansted ATS staff shall also familiarise themselves with the procedures contained in the Cambridge ACB and, when providing services at Luton, the Luton vMATS Part 2.

This vMATS has been divided into separate sections for ease of reference, each with its own three letter identification code.

This document is divided into sections as follows:

Page Abbreviation	Section
PRE	Preface
GEN	Unit General Operating Procedures
ADC	Aerodrome Control
APC	Approach Control (TC Stansted)
LOW	Low Level Procedures (VFR & SVFR Procedures)

TIME REFERENCES

All time references within this document are Coordinated Universal Time (UTC), or Zulu time, unless otherwise specified.

The UK observes daylight saving time in the summer months (British Summer Time, or BST), so the clocks shift forwards by one (1) hour. In summer therefore, UK local time is one hour ahead of UTC/Zulu time.

LIST OF FIGURES

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GEN | UNIT GENERAL OPERATING PROCEDURES

Chapter 1 Altimeter Setting Procedures

1.1 Departing Aircraft

Departing aircraft should state the QNH on first contact with GMP. Otherwise, it should be issued by the GMP controller, except for traffic remaining in the visual circuit who shall be passed the QFE (or QNH if required) when circuit clearance is given. Aircraft should be informed of any subsequent change to the QNH at the earliest opportunity.

1.2 Arriving / Transiting Aircraft

Traffic flying below the Transition Altitude are to fly with reference to the aerodrome QNH. The QFE may be requested for aircraft on final approach. The QNH should be issued with all descent to altitude, with a non-precision approach clearance and to any aircraft operating within or underneath Stansted controlled airspace.

1.3 QFE Threshold

The QFE for all runway thresholds is 12 hPa less than the QNH.

1.4 Transition Altitude

The Transition Altitude (in the London TMA) is 6000 feet AMSL.

> ***Note:*** *From here on, unless otherwise specified, vertical references measured in feet (ft) are to be assumed as altitudes AMSL.*

1.5 Transition Level and Minimum Stack Level

The Transition Level (TL) and Minimum Stack Level (MSL) for the London TMA are determined by reference to the following table:

Heathrow QNH (hPa)	Transition Level (TL)	Minimum Stack Level (MSL)
1050 - 1060	FL60	FL70
1032 - 1049	FL65	FL70
1013 - 1031	FL70	FL70
995 - 1012	FL75	FL80
977 - 994	FL80	FL80
959 - 976	FL85	FL90
940 - 958	FL90	FL90

> ***Note:*** *The classification of 1013 hPa as 'high pressure' in the above table differs from MATS Part 1.*

1.6 Altimeter Setting Region (ASR)

Stansted is located under the London TMA, which lies predominantly within the Chatham ASR. Traffic underneath the LTMA should be issued the QNH of an appropriate local airfield to mitigate controlled airspace infringement. Where service is being provided to traffic

under airspace that has a base above transition altitude, a suitable RPS should be provided.
Noise Abatement Procedures

1.7 General Procedures

Aircraft are to avoid overflying and controllers shall not radar vector aircraft overhead:

- Bishop's Stortford (west of Stansted) at any level
- Sawbridgeworth (southwest of Stansted) and Stansted Mountfitchet (northwest of Stansted) below 2500 ft
- St Elizabeth's Home (1 NM diameter circle on point 514949N 0000523E) below 4000 ft.

The outline of the above restrictions are selectable on the EuroScope situation display to assist controllers.

1.8 Procedures for Departing Aircraft

The noise preferential routings (NPR) listed in the UK AIP (EGSS AD 2.21) are mandatory for all jet aircraft and for all other aircraft with a maximum certified weight exceeding 5700 kg. Stansted ATC shall only provide instructions to deviate from the NPR when required for safety. The NPR terminate when an aircraft is at or above 4000 ft, except for BKY/NUGBO/UTAVA SIDs between 0600-2330 local time which terminate at 3000 ft.

The Stansted standard instrument departures (SIDs) (for traffic joining the ATS route network) incorporate the appropriate NPR.

1.9 Procedures for Arriving Aircraft

Arriving traffic to Stansted is not permitted to descend below 2000 ft before intercepting the glidepath. All jet aircraft and all other aircraft with a maximum certified weight exceeding 5700 kg making a visual approach may not descend below 1500 ft until established on the PAPI approach path.

Between the hours of 2330-0600 local time no aircraft shall descend below 3000 ft until it is established on the final approach path.

Chapter 2 All Weather Operations

2.1 Aerodrome Equipment

Runway 04/22 is equipped for Category II/III operations.

2.2 Low Visibility Procedures (LVP)

2.2.1 Enforcement

Low visibility procedures are initiated when:

- IRVR (or meteorological visibility) is 600 m or less, **or**
- Cloud ceiling is 200 ft or less

The AIR controller shall immediately notify FIN when LVP are to be initiated and ensure the ATIS is updated.

Where aircraft are on approach and the Category I holding points are in use by other aircraft, AIR shall inform the arrival of IRVR and that LVP are not yet in force and ask whether they wish to continue approach.

Due to the inability to accurately forecast on VATSIM, LVP shall only be cancelled when the reported IRVR, meteorological visibility and cloud ceiling are above the required minimum.

2.2.2 Safeguarding Procedures

Safeguarding is initiated when:

- IRVR (or meteorological visibility) is 1500 m or less and expected to fall below 600 m, **or**
- Cloud ceiling is 300 ft or less and is expected to fall below 200 ft

When safeguarding is initiated, GMC shall use the Category II/III holding points unless specifically agreed otherwise with AIR. AIR is advised to use only Category II/III holding points during safeguarding procedures but may use Category I holding points if felt appropriate to the situation.

2.2.3 Runway Procedures

During LVP, only one aircraft may use the runway at any one time. Conditional clearances, or instructions to follow other aircraft are not to be used.

2.2.4 Instrumented Runway Visual Range (IRVR)

Runway visual range readings will be provided when visibility is below 2000 metres. IRVR should then be passed to all arriving aircraft in the intermediate approach stage and within the ATIS. For the purpose of VATSIM, IRVR reported via METAR should be considered the IRVR for touchdown, midpoint and endzone of the runway.

2.2.5 Category II/III Holding Points

Departing aircraft will be required to use the following holding points during LVPs:

Runway	South	North
22	S3, R3, Q3	-
04	H3, K3, L3	G3, W3

2.2.6 Arrival Spacing

Absolute separation requirements are unchanged during LVP, however aircraft should be sequenced to ensure a landing clearance by 2 NM from touchdown. Standard arrival spacing should therefore be increased to 10 NM from touchdown to allow a safe departure between each arrival. Where FIN and AIR have coordinated, individual spacing may be reduced to 6 NM. Arrivals shall be vectored to establish the ILS by 10 NM from touchdown.

2.3 Windshear Warnings

Once turbulence or windshear has been reported to Stansted ATC, AIR (or TC Stansted FIN where appropriate) should inform all subsequent landing aircraft that windshear conditions

have been reported until confirmation has been received that the conditions no longer exist. For the purpose of VATSIM, this may be considered accurate if reported by two separate pilots.

2.4 Meteorological Information

Provision of an ATIS is the responsibility of the AIR controller (who may delegate the responsibility to another controller) and must be broadcast on 127.180 MHz. Aircraft are expected to confirm the current ATIS information on first contact with a Stansted station. When LVP are in force then this should be included in the ATIS broadcast.

Chapter 3 Description of Airfield

3.1 Aerodrome Geographical Data

ICAO Code	EGSS
Aerodrome Reference Point (ARP)	515306N 0001406E (midpoint of 04/22)
Elevation	348 ft
Transition Altitude	6000 ft
Safety Altitude	2100 ft

3.2 ATC Communication Facilities

Aerodrome Control (ADC)

Callsign	Logon Callsign	Abbreviation	Frequency (MHz)
Stansted Information	EGSS_ATIS	-	127.180
Stansted Delivery	EGSS_DEL	GMP	121.955
Stansted Ground	EGSS_GND	GMC	121.730
Stansted Tower	EGSS_TWR	AIR	123.805

Approach Control (APC)

Callsign	Logon Callsign	Abbreviation	Frequency (MHz)
Stansted Radar	EGSS_APP	INT	120.625
Stansted Director	EGSS_F_APP	FIN	136.200
Stansted Radar	ESSEX_APP	CO INT	120.625

Note 1: *The combined Stansted APC positions may be referred to as "TC Stansted".*

Note 2: *When TC Luton is closed, TC Stansted INT controllers may provide a Combined APC (CO INT) service (including top-down at Luton) using the ESSEX_APP logon. The RT callsign is "Stansted Radar" even when providing services at Luton; when coordinating the controller shall use the coordination callsign appropriate to the aerodrome (i.e. "TC Stansted" for Stansted and "TC Luton" for Luton).*

3.3 Radio Navigation and Landing Aids

Type	Identifier	Frequency	Remarks
ILS 04	I-SED	110.500 MHz	LLZ/GP/DME 3° Glideslope
ILS 22	I-SX	110.500 MHz	LLZ/GP/DME 3° Glideslope

Chapter 4 Use of Runways

4.1 Preferential Runway

Runway 22 shall be the preferred runway with a tailwind component less than 5 knots and a dry runway surface.

The selection of the runway in use shall be in reference to the current and forecast wind. In calm, changing or crosswind scenarios, the TAF and winds at 2000 ft should be used to identify the best runway in use.

4.2 Runway Change Procedures

In case of a change to the active runway, AIR shall initiate coordination with FIN to agree a last arrival and time for the runway change. FIN will coordinate with INT and with London TC as required.

Based on this time, AIR should then coordinate with GMP and GMC as to the last departure. GMP will re-clear any previously cleared aircraft that will now depart on the new runway.

AIR must then inform FIN of the intended last 3 (if appropriate) departures before, and the first departure after, the runway change (callsign and routing). FIN will inform AIR of the first arrival after the runway change at this time.

AIR must obtain a release from FIN before the first aircraft departs off the new runway.

4.3 Opposite Direction Departures/Approaches

4.3.1 Departures

Coordination of a departure from the non-duty runway shall occur on stand, prior to clearance being issued, between GMP and AIR. If AIR agrees, AIR shall initiate coordination with FIN and agree a course of action that will ensure that standard vertical separation will be maintained between the departure and any other conflicting, or potentially conflicting aircraft.

If the aircraft is an IFR airways departure, FIN will then notify the relevant TC sector, stating the runway to be used together with the aircraft's callsign and clarifying whether a release will be required from London TC.

AIR shall obtain a release from FIN prior to departure.

The FIN controller must ensure that standard vertical separation will be maintained until the departure is airborne, under positive radar control and lateral separation has been established between the departure and all other aircraft.

4.3.2 Approaches

FIN will contact AIR to request permission before positioning an aircraft to land on the non-duty runway.

FIN must ensure that in the event of a go-around (of either an opposite direction inbound aircraft or of an inbound aircraft to the promulgated runway) that standard vertical

separation will be maintained until positive radar control and lateral separation has been established between the go-around aircraft and any other aircraft

4.4 Runway Vacation Guidelines

Rapid exit taxiways PR, QR, NR and LR have a designed exit speed of 52 knots. Pilots shall not stop on any runway exit taxiway awaiting instructions from GMC.

During Runway 22 operations, vacating via NR or LR is permitted.

During Runway 04 operations, pilots should exit at PR and should not extend their landing roll beyond PR unless authorized by ATC.

Where a pilot is needed to vacate via rapid exit taxiways on the southern side, who may be planning to vacate to the northern side, the pilot should be informed no later than 2 NM from touchdown

4.5 Land After Procedures

Normally only one aircraft is permitted to land or take-off on the runway in use at any one time. When the traffic sequence is two successive landing aircraft, the second aircraft may be allowed to land before the first one has cleared the runway, in accordance with the requirements of CAP 493.

When using land after procedures the AIR controller will issue the *instruction*:

"(Callsign) Runway (04/22), land after the (Aircraft Type)."

Responsibility for ensuring adequate separation between the two aircraft rests with the pilot of the second aircraft.

4.6 Special Landing Procedures

Special landing procedures exist at London Stansted to allow arrivals to land whilst departing aircraft occupy the runway. These clearances may only be issued:

- In daylight hours with a dry runway, and
- When the visibility is 6 km and the cloud ceiling 1000 ft or greater, and
- Both aircraft involved are being operated in a normal manner (including indicated speed on approach of less than 160 knots), and
- When both the landing aircraft and controller can continually monitor the relevant traffic.

In these circumstances landing clearance may be issued to a following aircraft when at the time of crossing the threshold the departing aircraft **will be** at least 2500 m from the threshold or 2000 m from the threshold **and** airborne. This may be reduced to 1500 m when both aircraft are propellor driven with a maximum authorised weight of 5700 kg or less.

The phraseology to be used in this situation is:

"(Callsign) after the departing (Aircraft Type) cleared to land Runway (04/22)"

ADC | AERODROME CONTROL

Chapter 1 Ground Movement Planner (GMP)

1.1 Area of Responsibility

Ground Movement Planner (GMP) (*"Stansted Delivery"*) provides departure clearance to aircraft departing Stansted. For all aircraft, GMP shall verify the aircraft type and location, pass the QNH and update the data-block with the correct voice flag. When issuing a clearance, the flight rules, temporary altitude and assigned SSR code must all be updated.

GMP transfers aircraft to GMC once they report ready for pushback/start-up. Transfer of aircraft to GMC shall take place at an appropriate time to allow sensible movement and departure sequencing and therefore GMP should retain aircraft on their frequency where necessary to absorb delay.

On specific routes where pre-notes are required to TC Stansted or London TC for starting traffic, GMP shall issue these pre-notes when transferring to GMC.

1.2 Issuing Clearances

Pilots should report the following on requesting clearance:

- Aircraft type
- Stand number
- ATIS letter code
- Stansted QNH received from the ATIS

Where information is missing from the initial call, GMP shall confirm it with the pilot prior to issuing a clearance. If the QNH is omitted by the pilot, it may be passed during the clearance. All routes should be checked for validity, at least to the London/Scottish FIR boundary according to the Standard Route Document. The flight level should be appropriate for direction of flight.

Clearances shall be issued in the following format:

1. Callsign
2. Clearance Limit
3. Standard Instrument Departure (SID)
4. SSR Code (Squawk)

GMP shall obtain a read back of the clearance given and provide the ATIS letter code and/or current Stansted QNH if not already confirmed.

> ***Example:*** *"ABC123, cleared to Edinburgh, NUGBO 1 Romeo departure, squawk 0312"*

> ***Example:*** *"ABC123, correct. Information Alpha, Stansted QNH 1013."*

Prior to transfer to GMC, aircraft must be informed of any changes to their clearance and/or the current QNH.

1.3 Standard Instrument Departures

Stansted uses a combination of conventional and RNAV1 SIDs.

Legend

†	RNAV SID
()	Alternative for non-RNAV
*	Stepped climb

Route	22	04	Remarks
BKY	6R 4000 ft	3S 5000 ft	For traffic leaving controlled airspace via BKY or re-positioning to EGGW only
CLN	2E† (9R) 4000 ft*	5S 4000 ft*	See *Note 2*
DET	2R 5000 ft	2D† (2S) 5000 ft	Significant route restrictions – see *Notes 2 & 3*
NUGBO	1R 4000 ft	1S 5000 ft	See *Note 3*
UTAVA	1R 4000 ft	1S 5000 ft	-

***Note 1**: Where an RNAV and conventional SID alternative exist, clearance should be issued via the RNAV SID unless requested by the pilot. On VATSIM, controllers are permitted to issue the RNP1 departures without confirming equipment type.*

***Note 2**: Traffic via DET is not permitted, between 0600-2300 local time, to route eastbound towards DVR/KONAN/VABIK/RINTI via ATS routes L6, L9, L18, Q70, L10. This traffic **must** be re-routed via CLN.*

***Note 3**: Traffic may route via DET and LYD (DET M604 LYD M189 WAFFU) towards the London/Paris FIR boundary at restricted levels. Traffic routing to the Paris TMA (via XIDIL) is permitted up to FL265. Otherwise, traffic on this route is restricted to FL175 and below as a final cruise level. Traffic wishing to cruise higher than this **must** be re-routed via NUGBO.*

1.4 Flight Level Capping

Flights to certain destinations are capped, generally due to operational reasons. Controllers shall ensure adherence with this table, informing the pilot of necessary changes whilst being careful to prevent the pilot from misinterpreting the change as an initial climb. Controllers may inform pilots that, in some cases, it will be possible to obtain a higher climb from area controllers – but this shall not be coordinated on the ground.

Destination	Maximum FL
EGBB/BE/NX	FL180
EGCC/GP/NR	FL180
EGNH/NJ/NM/NO	FL240
EGFF/GD/SY	FL200
EGNT/NV	FL340
Belfast Group	FL320 via LIPGO
Dublin Group	FL340 via LIPGO/VATRY
EH** and EHBK, Haamstede Group and EHAM	FL230 FL210 FL290 via REDFA
Brussels Group	FL230
LSZH/MD, Lyon Group, Saint Yan Group, Strasbourg Group, Chambery Group, Basel Group, LFLX	FL290 *except* via KONAN
LFOB/OP, Roissy Group	FL250
Lille Group, EBOS/FN/KT	FL170
LFRR FIR	FL290
LFBB FIR, LFLC, LESO	FL350
LFBI/BL/BU/LX/OT	FL270

Group	Includes (most popular destinations emboldened)
Basel Group	LFGA, LFGB, **LFSB**, LFSM
Belfast Group	**EGAA**, EGAC, EGAD, EGAE, EGAL
Brussels Group	EBAW, **EBBR**, EBCI, EBCV, EBMB
Chambery Group	LFHM, LFHU, LFKA, LFKX, LFLB, LFLE, LFLJ, LFLP
Dublin Group	**EIDW**, EIME, EIWT
Haamstede Group	EHBD, **EHEH**, EHGR, EHMZ, **EHRD**, EHSE, EHVK, EHWO
Lille Group	LFAC, LFAQ, LFAT, LFAV, LFAY, LFQQ, LFQO, LFQT
Lyon Group	LFHJ, LFHS, LFHV, LFHW, LFKL, LFKY, LFLG, **LFLL**, LFLM, LFLS, LFLU, LFLY, LFMH, LFXA
Roissy Group	LFPB, **LFPG**, LFPT
Saint Yan Group	LFGM, LFGN, LFHY, LFLN, LFLO, LFQF
Strasbourg Group	LFGC, LFQP, LFST, EDSB, EDSK, EDSW, EDTB, EDTL, EDTO

1.5 Pre-Departure Clearance (PDC)

When both the controller and pilot are suitably equipped, a PDC may be offered to clear pilots electronically. The operation of the controller PDC clients is explained in operations guides for the separate options for hosting this facility – the TopSky plugin, vStrips, vSMR and Hoppie's ATC ACARS client host instructions as to how to use their programs on their respective websites.

Alternative methods of PDC may be used unless otherwise notified.

1.5.1 Availability of PDC

PDC clearances will not be available (and should not be issued) in the following circumstances:

- Up to half an hour before a runway change, to prevent the incorrect issuing of a SID. The actual availability of PDC will be at the GMP controller's discretion.

  Note: *Should the GMP controller elect to continue issuing PDC clearances within the 30-minute period before a runway change, they shall only issue manual PDC clearances and deactivate auto-PDC. This is to prevent the inadvertent issue of an auto-PDC clearance with an incorrect SID without the GMP controller noticing*

- When the route of an aircraft's flight plan needs to be changed, or for expedition due to a flow restriction on a certain routing.

In all the above cases, the pilot should be advised by ACARS message to call the controller by voice in order to obtain ATC clearance.

1.6 Flights to Local Airfields

1.6.1 Delay Absorption

Whenever a clearance to an airport in the London TMA, Southampton (EGHI), Bournemouth (EGHH), Birmingham (EGBB), Coventry (EGBE) or East Midlands (EGNX) is issued, GMP shall initiate coordination with the receiving TC departure sector to determine whether any delay on stand will be required. This coordination shall include the callsign, destination, aircraft type and RFL. The TC sector should respond with any delay (a response without specifying a delay may be interpreted as no delay). Absorption of delay does not mean the flight is released.

GMP shall take the following actions depending upon the delay:

1. Less than 10 minutes: inform the pilot of the delay. No further coordination required.
2. 10 to 20 minutes: inform the pilot of the delay. Send a courtesy message to the receiving TC sector when the delay is absorbed and the pilot is starting. *("GABCD starting for EGLL"*), no response is required from TC.
3. Greater than 20 minutes: TC to specify *"greater than 20 minutes"* or *"delay not determined"*. GMP to inform pilot of *"delay not determined, at least 20 minutes"* and ask whether they wish to proceed. GMP to re-coordinate at 20 minutes with TC.

In the event that the relevant London TC sector is offline, the destination's APC unit should receive this coordination.

In most situations, this coordination should ideally take place via text communication.

1.6.2 Flights to Luton

Flight Plan Routing: DCT BKY DCT BUSTA

Clearance shall be issued via the BKY SID, with an initial climb of 4000 ft (regardless of runway).

> ***Example:*** *"ABC123 cleared to Luton, BKY 3S departure, climb to altitude 4000 ft, squawk 1234"*

The delay absorption procedure shall be applied to these flights except that coordination shall be with **TC Luton INT** (or appropriate top-down coverage). Stansted FIN shall also receive a pre-note when this traffic is starting.

1.6.3 Flights to Cambridge

Flight Plan Routing: DCT BKY DCT

Clearance shall be issued via the BKY SID, with an initial climb of 4000 ft (regardless of runway).

> ***Example:*** *"ABC123 cleared to leave controlled airspace at BKY, BKY 3S departure, climb altitude 4000ft, squawk 1234"*

The delay absorption procedure shall be applied to these flights except that coordination shall be with Cambridge APC (or appropriate top-down coverage). Stansted FIN shall also receive a pre-note when this traffic is starting.

1.6.4 Flights to the Thames Group

Flight Plan Routing: CLN DCT LOGAN

Flights positioning to an airport within the Thames Group (London City, Biggin Hill and Southend) shall be cleared via a CLN SID.

The delay absorption procedure shall be followed with TC North East. In their absence, the request should be made to TC Thames (TMS DIR).

The requested flight level (RFL) shall be at least MSL.

1.6.5 Flights to London Heathrow/RAF Northolt

Flight Plan Routing: CLN DCT LAM

Flights positioning to London/Heathrow (EGLL) and RAF Northolt (EGWU) shall be cleared via a CLN SID.

The delay absorption procedure shall be followed with TC North East (or their top-down). When not online, coordination is to take place with TC Heathrow INT North.

The requested flight level (RFL) shall be MSL, but actual cruise will be issued by London TC after departure.

1.6.6 Flights to London Gatwick

Flight Plan Routing: DET DCT TIMBA

Traffic via this route shall be cleared via the DET SID. The delay absorption procedure shall be followed with TC North East (or top-down) or in their absence TC South East (or top-down). If both of these stations are offline, then coordination should occur with TC Gatwick.

The requested flight level (RFL) shall be at least MSL.

1.6.7 Other Airfields

To Farnborough, Southampton, Bournemouth

NUGBO DCT SILVA DCT CPT

Delay Absorption procedure with TC NW. If not online, with TC SW, then receiving APC unit.

To Birmingham

UTAVA Q75 BUZAD

Delay Absorption procedure with TC NW.

To Coventry

UTAVA Q75 BUZAD

Delay Absorption procedure with TC NW.

To Shoreham

NUGBO M183 SILVA Q41 COWLY T71 VAPID N859 GWC DCT

No delay absorption procedure required.

1.7 Flow Restrictions

1.7.1 Calculated Take-off Times (CTOT)

A Calculated Take-Off Time (CTOT), sometimes referred to as a 'slot', is issued to a sequence of departures as a long-term flow management system when there is a significant excess of aircraft wishing to depart the aerodrome. CTOTs will usually only be employed as a method of flow control on VATSIM during particularly busy events.

On VATSIM, the adherence to slot times is clearly not as important as the real world, and a deviance of 5 minutes before or, 10 minutes after is typically required during events. Since CTOTs are generally locally assigned, instead of being based on restrictions in Europe, adherence rules as strict as this do not tend to be employed, although it may be deemed acceptable to delay aircraft who have not met a reasonable CTOT.

GMP should retain aircraft on stand until a reasonable time to facilitate the meeting of a slot time in order to prevent both RTF congestion on ground frequencies and the blocking of taxiways. The time for pushback and taxi distance should therefore be considered when determining a suitable time to transfer the aircraft to GMC.

1.7.2 Minimum Departure Intervals (MDI)

During periods of congestion in the London TMA, TC may impose a Minimum Departure Interval (MDI) between specified departures. The maximum validity of this MDI may be 30 minutes, at which point if further restrictions are required, TC will inform Stansted ADC of a new MDI. The MDI may be removed at any point by TC London.

1.7.3 Airfield Reasonable Departure Spacing (ARDS)

It is as much the responsibility of GMP and GMC to monitor the number of departures at the holding point as it is the job of AIR. There is no formal flow restriction associated with the concept of ARDS, but GMP and GMC must consider how factors such as the meteorological conditions will affect AIR's ability to maintain a reasonable departure rate.

1.8 VFR and SVFR Clearances

GMP may issue VFR or SVFR clearances without reference to FIN via the published entry/exit routes. Where an aircraft is unable to accept or comply with a clearance via one of these routes, coordination must occur with FIN to ascertain the departure route and restrictions. Permitted departure routes for VFR/SVFR traffic are:

- Canfield A120/B1256 Interchange
- Audley End Railway Station (via M11)
- Nuthampstead Aerodrome via Hazelend Wood VRP
- Puckeridge A10/A120 Interchange via Hazelend Wood VRP

Clearances will be issued to 'not above' altitude 2000 ft, Stansted QNH. Both VFR and SVFR departures will be issued SSR code 7410.

> ***Example***: *"G-ABCD, hold position, cleared to leave the Stansted Control Zone via Hazelend Wood and Puckeridge A10/A120 Interchange, not above 2000 ft, VFR, squawk 7410."*

GMP will allocate the temporary altitude of 2000 ft but shall not insert the 7410 squawk into the data-block. When the aircraft is ready for start-up, GMP shall transfer the aircraft to GMC and inform AIR of the clearance issued.

FIN will typically issue a unique code once the traffic is airborne.

1.9 Transfer to GMC

GMP should use the following phraseology when transferring to GMC:
"(Callsign), hold position. Contact Stansted Ground 121.730"

The phrase *"start approved"* should only be used when the pilot has requested to start an engine on stand. Turboprop aircraft shall be passed the outside air temperature with start clearance.

1.10 Stand Allocation

Stand allocation will normally be automated by UKCP.

In the event of a UKCP failure, it is the responsibility of the GMP controller to assign stands to aircraft based off published allocation guidance. GMP should avoid amending the assigned stand after the aircraft has landed unless the change is communicated with GMC.

Chapter 2 Ground Movement Control (GMC)

2.1 Area of Responsibility

Ground Movement Control (GMC) (*"Stansted Ground"*) is responsible for the safe and expeditious movement of aircraft on the aprons and taxiways. GMC shall provide GMP services in their absence.

2.2 Pushback Clearance

GMP shall transfer aircraft to GMC on stand, having received the active QNH. Clearance to push should include the stand number, so as to improve the situational awareness of other aircraft on frequency.

> ***Example:*** *"ABC123, stand 22, push and start approved."*

Turboprop aircraft shall be passed the outside air temperature.

All south-side aprons at Stansted have one entry/exit direction and therefore push direction need not be issued. Aircraft on the G apron to the north side may need clarification, but small aircraft parked there may be able to taxi directly off stand.

2.3 Runway Crossings

Aircraft needing to cross the duty runway are rare and will typically do so across November and Victor. All crossings of the duty runway shall occur with the aircraft on the AIR frequency. Clearance is not to be relayed.

When Runway 22 is in use, GMC shall not taxi aircraft to N1, due to the risk of aircraft using the rapid exit taxiway NR. GMC shall issue taxi instructions onto taxiway H and *"hold short of November"*. For all other situations, GMC will instruct aircraft to *"hold short [runway]"* even if this is implied by a holding point.

> ***Example:*** *"ABC123, taxi Alpha, Hotel hold short taxiway November."*

> ***Example:*** *"ABC123, taxi V1, hold short Runway 22."*

2.4 Taxiway Restrictions

2.4.1 Code F Ground Movements

Code F compatible taxiways are depicted on UK AIP chart AD 2.EGSS-2-3. Code F aircraft (Airbus A380 and Boeing 747-800) can be accommodated on stands:

- 6
- 9
- 204-205
- 213

2.4.2 General Restrictions

Details of taxiway restrictions are documented in UK AIP AD EGSS Section 2.20.2.

Aprons A, B and C have west, east and middle taxilanes designed to allow simultaneous use of Code A-C aircraft (i.e. wingspan less than 36 m). However, given the inaccuracy created by different scenery and pushback accuracy, the following rules shall apply for their use:

1. Aircraft pushing back are never able to achieve wingtip clearance from aircraft on the opposite lane until stationary
2. Any Code A-C may be instructed to use *"Alpha West"* or *"Alpha East"* by the controller, but should be assumed they are using the middle taxilane unless the pilot confirms they have the relevant lane on their scenery
3. If two pilots have both confirmed they have the relevant scenery, they may be permitted to independently use the east/west lanes.

Taxiways between H and J are referred to as "links" i.e. "Link Alpha" – however, the use of "link" in taxi instructions is optional.

2.4.3 Taxiway Restrictions

The following taxiway restrictions apply:

Location	Restriction
G	Not to be used past G3 for wingspan greater than 36 m when Runway 04 is in use. Traffic should expect to cross at V.
Link D	Maximum wingspan 52.9 m
H east of link D Link E	Maximum wingspan 36 m

2.5 Non-Direct Taxi Instructions to Stand

Where a clear route and taxi instruction cannot be issued to take an aircraft to its stand, the phrase *"expect stand"* should be used to inform the aircraft of their parking position.

> ***Example:*** *"ABC123 taxi via J, hold short of A, expect stand 24."*

2.6 Preferred Taxi Routings

The GMC controller should consider the traffic inbound and outbound to make expeditious use of traffic. There is no 'standard' or 'preferred' taxi routing system. Diagrams in Appendix A are provided as examples of how outbound vs inbound aircraft **may** be routed to minimise the use of the same taxiway in opposite directions.

2.7 Departure Runway Holding Points

The use of G1 for departures off Runway 04 should be avoided wherever possible. All north-side traffic that does not require G for runway length, should be taxied to V.

When Runway 22 is in use, consideration of departure runway utilisation is needed if considering departure from P instead of Q. Should the pilot request to depart from P (typically a small aircraft crossing from the north side), consideration should be given as to whether there are any aircraft of a higher wake turbulence category ahead at R/S. Where this is, use of P would result in an extra minute of departure delay in comparison to Q.

When Runway 04 is in use, consideration of departure runway utilisation is needed if considering L instead of K/H. Where an aircraft of higher wake turbulence category is ahead at H, traffic departing behind from L would require an extra minute of departure spacing for wake turbulence. Where there is significant departing traffic, it should be routed to K/H.

2.8 Departure Handoff

Aircraft shall be transferred to AIR with reasonable timing to allow AIR to make full use of the runway. GMC should only retain traffic if a potential confliction exists. It is expected that aircraft will have had time to make contact with the AIR controller in advance of their runway holding point.

2.9 Helicopter Traffic

All helicopters must use the runways for takeoffs and landings. Helicopters may not carry out direct approaches to or take-off from apron areas or taxiways. Helicopters landing on should normally be instructed to vacate at U or V1 (occasionally G1) after which they can be instructed to ground taxi or air taxi to the most appropriate location selected by GMC, typically a stand on F or FA.

Departing helicopters should air or ground taxi to V1 for departure in either runway direction.

Chapter 3 Air Control (AIR)

3.1 Area of Responsibility

Air Control (AIR) (*"Stansted Tower"*) is responsible for the safe and expeditious use of the active runway and the rapid exit taxiways, for the provision of information to aircraft making an instrument approach and the control of VFR aircraft operating within the visual circuit.

AIR shall obtain relevant releases and transfer departures to the appropriate radar controllers.

3.1.1 Delegated Responsibilities

AIR is delegated responsibility for traffic operating VFR in the vicinity of the ATZ, in collaboration with FIN, who must be notified of all traffic in the ATZ, including circuit traffic.

3.2 Line Up Procedures

3.2.1 RT Phraseology

All instructions to enter a runway shall include:

1. The relevant runway designator,
2. The holding point designator at which the aircraft is to enter the runway, and
3. For crossing traffic, the holding point designator at which the aircraft is to vacate the runway.

3.2.2 Multiple Aircraft on the Runway

The AIR controller needs to be aware of the potential effects of jet blast when lining up multiple aircraft on the runway. It is generally acceptable to line up two aircraft as long as there is a sufficient gap. For this purpose, the following combinations of entry points are suitable:

- Runway 22: R/S and Q; Q and P
- Runway 04: H/G and K; K and L.

3.3 Conditional Clearances

3.3.1 Conditionals behind Arriving Traffic

To assist with situational awareness when lining up behind arriving traffic, the distance from touchdown should be included.

> ***Example:*** *"ABC123 behind the landing Boeing 737-800 at 3 miles, via R1, line up Runway 22 behind"*

A conditional line up clearance should only be issued against the first aircraft on approach.

3.3.2 Runway Safeguarding Phraseology

The word *"follow"* must not be used in conditionals in the runway holding area. Aircraft should not be instructed to *"follow"* another one to prevent two aircraft lining up with only one of them having clearance to do so.

Aircraft should not be told their number in the intended departure sequence. Instead, AIR may issue approximate airborne times as either a time past the hour, or an approximate wait in minutes.

3.3.3 Intersection Conditionals

Aircraft at an intersection may only be issued a conditional line up or crossing instruction behind the next departing aircraft i.e. the aircraft should be able to perform the intended action behind the next aircraft that passes them.

3.3.4 Maximum Runway Conditionals

It is recommended that a maximum of **two** conditionals shall be active at any one time. I.e. An aircraft may be lining up behind a departure on the runway, and another aircraft may be lining up behind them.

3.4 Runway Clearances

It is accepted that a degree of anticipation is permissible in the issuance of take-off and landing clearances. In all cases, except where a land-after clearance or conditional landing clearance (see GEN 5.6) is issued, take-off/landing clearances shall not be passed until the preceding aircraft:

- Has passed the runway edge markings and
- Is in motion, continuing in the required direction.

Vacating aircraft must not be instructed to stop until they have passed entirely beyond the runway holding point.

When a clearance is issued in anticipation of meeting the vacated requirement, controllers shall continuously monitor the situation using the SMR and take positive action if the requirement may not be met.

3.5 Flights to Local Airfields

GMP will have coordinated initially with the relevant local controllers – see ADC 1.5. A release shall be obtained from the receiving TC controller by AIR for IFR flights within controlled airspace to all London TMA airfields, with the exception of:

- Luton (request release from Stansted FIN)
- Cambridge (request release from Stansted FIN)
- Shoreham (no release required)

Aircraft transferred to TC North East, shall be released by this sector (or top-down controller). If TC North East is offline, then release should be coordinated with TC South East except for Heathrow/Northolt Traffic which shall be released by TC Heathrow INT North.

Aircraft routing via NUGBO/UTAVA shall be released by TC North West (or top-down controller). Where these controllers are offline, the release is no longer required.

Aircraft subject to a release must depart within + 5 minutes of the release time.

3.6 Wake Separation

3.6.1 Wake Turbulence Separation

Wake turbulence separation should be provided in accordance with MATS Part 1.

3.6.2 Holding Points

The following pairs of holding points are considered to be the same point for the purposes of departure wake vortex separation:

Runway 22	Runway 04
S1/S3 and R1/R3 and Q1/Q3	H1/3 and G1/G3 and K1/K3
Q1/Q3 and P3	K1/K3 and L1/L3

3.7 Speed Limitation on Departure

A speed limit of 250kt IAS applies to all departures from Stansted whilst flying below FL100. If departing aircraft are unable to comply with the standard speed limit, this may impact on the initial time separations applied by ATC. In all such cases, pilots will:

If before take-off -

- Inform GMP when requesting start-up clearance stating the minimum or maximum speed acceptable. GMP is to inform the appropriate radar controller who may specify a high-speed limitation and/or additional take-off separation as necessary, which shall be communicated to AIR. AIR is to advise the pilot, before take-off, of any higher speed limitation imposed.

If after take-off –

- Inform ATC the minimum speed acceptable.

The onus for removing the speed limitation rests with the appropriate radar controller who will advise the aircraft as soon as the traffic situation permits. AIR controllers are not to remove a speed limitation without first obtaining the approval of the appropriate TC Sector controller.

3.8 Departure Separation

All departure separations must be considered as **minima** and (except for S3+ radar validated controllers) should not be reduced by Stansted ADC through the use of RSIVA, or by any other means.

3.8.1 Table of Aircraft Speed Groups

To permit the calculation of the correct time interval between departures, aircraft are categorised into four groups, as shown in the following table:

Group 4	Group 3	Group 2	Group 1
All jet aircraft	BAE146/Avro RJ	ATR variants	BN2P/T
except:	Citations except	DH8A/B/C	C208
- Those in group	C56X/680/68A/700/750	F50	DA62
3	CL35/CL60	JS31/32/41	DHC6
- Concorde	CRJ1/2/7/9/X	King Air variants	E110
- Military Jets	D328/J328	PC12	
	DH8D	SF34	
	E135/145	SW3/4	
	E50P/55P	TBM7/8/9	
	P180		
	SB20		

Aircraft not included in Groups 1 to 4 are to be the subject of a separation to be agreed between Stansted and the appropriate TC Departure controller and/or TC Stansted FIN.

3.8.2 Route Separation

The following departure intervals are times in minutes, applied between aircraft in the same speed group:

Runway 04/22		**Route of leading aircraft**		
		CLN/DET	**UTAVA/BKY**	**NUGBO**
Route of following aircraft	**CLN/DET**	2	1	1
	UTAVA/BKY	1	2	2
	NUGBO	1	2	3 *(Note 1 & 2)*

Note 1: *Where there is significant demand for departures via NUGBO, AIR may coordinate with TC NW to request a temporary reduction to 2 minutes for a specific time period or group of aircraft. TC NW will need to coordinate this with onward sectors and so approval is unlikely to be immediate.*

Note 2: *Controllers are reminded of the need to separate NUGBO traffic by 3 minutes applies even if the last departure was not via NUGBO.*

When time-based separation is being used as the sole means of applying departure separation, 1 minute shall be not less than 60 seconds and 2 minutes shall be not less than 120 seconds.

Separation between departing aircraft shall be applied so that after one aircraft takes off the next succeeding aircraft does not take-off within less than the number of minutes specified in the table. Such separation criteria are **minima** and must not be allowed to be eroded.

For radar validated controllers (S3+):

Subject to wake vortex and speed group, where 2 minutes separation is specified, a departure interval of at least 5 NM may be used as an alternative between aircraft on similar or diverging tracks. AIR must ensure that 5 NM separation between departing aircraft is constant or increasing prior to transfer to TC.

3.8.3 Speed Separation

When a faster aircraft follows a slower aircraft, the interval is to be increased by 1 minute for each successive speed group.

Subject to wake vortex separation, the interval may be reduced to 1 minute provided that the following aircraft is 2 groups slower than the preceding aircraft.

3.9 Departures Subject to Radar Approval (Departure Releases)

AIR is to obtain a **departure release** from **Stansted FIN** prior to issuing take-off clearance for:

- Traffic to EGGW/EGSC
- Non-airways IFR and SVFR departures
- Airways departures unable to fly or deviating from a SID/NPR
- Any subsequent SID departure after the above categories
- The first departure following a runway change
- The first departure following a missed approach
- VFR departures not routing via standard routes.

AIR is to obtain a **departure release** from **the receiving controller** (i.e. London TC or FIN) prior to issuing take-off clearance for:

- Aircraft types not on the speed table or when the following aircraft is 3 groups faster than the leading aircraft, plus the subsequent departure
- Whenever AIR intends to depart successive aircraft which would be separated by less than the specified time interval
- DET SID departures.

AIR is to obtain a **departure release** from the relevant **TC controller** for departures to the LTMA, as detailed in ADC 1.6.

Aircraft subject to a release must depart within + 5 minutes of the release time.

AIR will normally clear all other departures for take-off without prior reference to TC. Such departures will be transferred direct to the appropriate TC Sector (see ADC 3.10), unless otherwise instructed by FIN. AIR will inform FIN if an aircraft is observed to deviate from the NPR to the extent that departure separation may be eroded.

3.9.1 DET SID Departures

All DET SID departures are to be pre-noted to TC Thames (TMS DIR) **prior** to the aircraft entering the runway.

3.10 Transfer of Control and Communication

3.10.1 Departures

Departures may only be transferred to the appropriate frequency once all aerodrome conflictions have been resolved. Ideally transfer shall occur no later than 2000 ft or 2.5 NM from the departure end of the runway, though if required to retain traffic to resolve a confliction, the AIR controller shall look out for pilots climbing to above their initial (cleared) level and take action.

If the departure time separation applied does not achieve the expected airborne separation, then the AIR controller should coordinate with Stansted FIN as soon as possible to agree a heading to achieve separation. This action is to be retrospectively co-ordinated with the appropriate TC departure controller.

Non-standard IFR, VFR and SVFR departures are transferred to Stansted FIN once clear of aerodrome traffic.

3.10.2 Departure Handoff Priority

Departure	1	2	3	4	5	6	7	8	9	10	11	12
CLN/DET	TC NE	TC N	TC	TC E	LE	LC	LSC	L	INT	CO INT	*	
UTAVA/ NUGBO/ BKY	SS FIN	SS INT	CO INT	TC NE	TC N	TC	TC M	TC E	LE	LC	LSC	L

London Terminal Control
TC NE – TC North East
TC N – TC North
TC – TC Bandbox
TC E – TC East
TC M – TC Midlands

London Area Control
LE – AC Clacton
LC – AC Central
LSC – AC South Central
L – AC Bandbox

TC Approach Units
INT – Stansted INT
FIN – Stansted FIN

CO INT – Combined Stansted/Luton INT
*LL INT N – TC Heathrow INT North (for repositioning flights to EGLL/WU only)

3.10.3 Aircraft on Approach

The transfer of communications of an aircraft from FIN to AIR should occur no later than 6 NM from touchdown and is prior to the transfer of control.

FIN remains responsible for radar separation and wake turbulence separation of aircraft until touchdown and therefore no changes to speed may be given by AIR without agreement with FIN.

3.11 Landing Clearance

3.11.1 Runway Designator

The runway designator should be included in all landing clearances.

3.11.2 Cancelling Approach Clearance

It is the responsibility of the AIR controller to issue landing clearances to all aircraft. If they are not satisfied that an approach can continue safely they may issue instructions to re-position a particular aircraft or instruct the aircraft to *"go around"*.

3.12 Arrival Spacing

All arrival wake turbulence separation is as per MATS Part 1.

In routine operations FIN shall ideally achieve spacing of 6 NM to allow 1 departure or 8 NM to allow 2 departures.

3.13 Minimum Radar Separation

A minimum radar separation of 3 NM applies between IFR aircraft.

3.14 Missed Approaches

The standard missed approach procedures are as described in the table below**.**

Approach	Missed Approach Procedure
ILS 22 LOC 22 RNP Z 22	Climb straight ahead not above 3000 ft. At I-SX DME 3.1 (VOR BKY R156) turn right to establish on VOR BKY R171 (QDM 351°) by BKY DME 8 continuing climb as necessary to BKY VOR at 3000 ft or as directed.
ILS 04 LOC 04 RNP Z 04	Climb straight ahead not above 3000 ft. At I-SED DME 2 (VOR BKY R116) turn left to establish on VOR BKY R101 (QDM 281°). Cross BKY DME 5 at 3000 ft then continue to BKY VOR at 3000 ft or as directed.

Note: *RNP missed approaches are to resume conventional navigation at 800 ft.*

3.15 Go Around Procedure

On becoming aware of, or after initiating a go-around, the AIR controller is to:

1. Activate the UKCP Go-Around Alarm
2. Take initial action to establish separation between the go-around and departing traffic:
    a. Go-around traffic shall not be cleared above 3000 ft
    b. Tactical headings may be issued only if necessary to avoid an immediate conflict
    c. Traffic should be monitored visually where able, or via the ATM
3. Coordinate with the FIN controller as soon as able, ideally concurrently with any initial corrective action. Coordination should:
    a. Agree routing and cleared level of departure and go-around traffic
    b. Agree frequency for go-around traffic to be transferred to

4. Pass traffic information where required or useful
5. Relay any instructions from FIN to relevant traffic and monitor situation until transfer to APC.

The next departing aircraft following a missed approach requires a release from FIN.

3.16 VFR/SVFR Procedures

3.16.1 VFR and SVFR Departures

Certain VFR and SVFR clearances will have been issued by GMP without reference to FIN. All departure information is relayed to AIR by GMP. Traffic issued such a clearance should be squawking 7410. If there is any doubt about the aircraft's clearance it should be clarified with the pilot and/or re-cleared.

The following VFR routings not above 2000 ft may be issued take-off clearance without reference to FIN:

- Canfield A120/B1256 Interchange
- Audley End Railway Station (via M11)
- Nuthampstead Aerodrome via Hazelend Wood VRP
- Puckeridge A10/A120 Interchange via Hazelend Wood VRP

Prior to issuing take-off clearance, FIN must be notified of the departure, but take-off clearance does not need to wait for a response:

> ***Example:*** *"G-ABCD VFR departure via Puckeridge to Luton"*

Upon receipt of this message FIN shall inform of any relevant traffic information to be passed before handover.

Once clear of any aerodrome conflictions, the aircraft shall be transferred to FIN who will allocate a discrete squawk before providing a radar service.

SVFR departures require a release from FIN regardless of whether they are routing on a standard route or have been individually coordinated.

FIN will typically issue a unique code once the traffic is airborne but may pass a code to AIR with a release for SVFR traffic.

3.16.2 Circuit Procedures

Circuits may take place to the south side of the aerodrome at altitude 1400 ft (or height 1000 ft) at the discretion of the AIR controller. FIN shall be informed when the circuit is active, when it ceases to be active and if the downwind leg extends beyond 4 NM.

VFR circuit traffic should be instructed to squawk 7010.

SVFR circuits require the approval of FIN and shall be coordinated to ensure standard separation is maintained against other IFR or SVFR traffic unless AIR is able to provide reduced separation in the vicinity of the aerodrome (RSIVA).

3.16.3 Integrating circuit traffic with IFR approaches

VFR traffic may be instructed to orbit at the start or end of the downwind leg, to land or to leave the circuit and hold away from the instrument approach. Traffic information is to be passed as appropriate. Circuit traffic must report the relevant traffic in sight before turning base.

If the pilot cannot see the aircraft on final, they must either extend downwind or orbit left/right at the end of their downwind leg until the aircraft on final is sighted or has landed. Once the traffic is in sight or has landed, wake turbulence advisories should be passed (if applicable) with the instruction to report final.

Except when AIR is able to apply RSIVA SVFR traffic must either land or be routed to maintain 3 NM separation from the final approach track whenever inbound IFR traffic is within 10 NM.

3.16.4 Re-join Procedures

Aircraft shall typically be cleared to join a downwind or base leg appropriate to the direction of arrival, however AIR may integrate traffic however necessary. Overhead joins are not normally to be permitted.

3.17 Helicopter Procedures

Helicopter VRPs are established to assist with the arrival and departure of rotary aircraft. These are the northern edge of Hangar 12 and the Diamond Hangar to the south. TC Stansted will coordinate arriving helicopters in advance with AIR and transfer once visual with the field, routing to the relevant VRP.

Helicopter landings and departures shall be from the runway in use. After landing, traffic shall typically air or ground taxi to a parking area on F or FA. Helicopter traffic will typically enter/leave the runway via V1 or U, therefore helicopters will typically be instructed to “land long” to reduce runway occupancy time.

Departing helicopters shall be cleared/coordinated in the same manner as fixed wing traffic.

3.18 Use of the Aerodrome Traffic Monitor

An Aerodrome Traffic Monitor (ATM) is available, and the information derived from the ATM may be used by all AIR controllers to:

- Determine the landing order, spacing and distance from touchdown of arriving aircraft.
- Assist in applying longitudinal separation for departing aircraft.
- Enable controllers to confirm that the initial track of departing aircraft conforms with the clearance issued.
- Provide information to aircraft on the position of other aircraft in the circuit or carrying out an instrument approach.

Additionally, ***radar validated controllers (S3+)*** may utilise the ATM for advanced uses:

- Following identification, validate SSR codes of departing aircraft and verify associated mode C read-outs.
- Monitor the progress of overflying aircraft identified by Approach Radar Control to ensure that they do not conflict with the tracks of arriving or departing aircraft.
- Establish separation between departing aircraft.
- Pass traffic information.
- Establish separation in the event of a missed approach.
- Assist in taking initial corrective action when the separation between arriving aircraft becomes less than the prescribed minima

Radar validated controllers may, where appropriate, utilise RSIVA to reduce departure separation between aircraft on diverging tracks provided that 3 NM horizontal radar separation is established before the aircraft are transferred to the next controller.

APC | APPROACH CONTROL (TC STANSTED)

Chapter 1 Area of Responsibility and Sector Organisation

1.1 General

In this section, the following naming conventions are adopted for the Essex Group

INT	- Intermediate Director (*"Stansted Radar"*)
FIN	- Final Director (*"Stansted Director"*)
TC Stansted	- Collective INT and FIN functions

Note: *The procedures within this section assume that TC Luton and Cambridge APC are online. In the absence of the relevant positions, TC Stansted INT assumes responsibility for Cambridge APC and, when using the ESSEX_APP logon, may assume responsibility for TC Luton.*

1.2 Area of Responsibility

TC Stansted is responsible for the Stansted CTR/CTAs and London TMA airspace delegated to it by London Terminal Control (the Stansted RMA) and provides services to:

1. Arriving aircraft transferred by London Terminal Control until control is transferred to Aerodrome Control or Cambridge APC,
2. Aircraft approaching from outside controlled airspace, until control is transferred to Aerodrome Control,
3. Departures transferred by Aerodrome Control or Cambridge APC until transfer to Area Control or until the aircraft has left controlled airspace,
4. Overflights within Stansted airspace or airspace delegated to TC Stansted.

TC Stansted INT may also provide UK FIS services to low-level traffic within 40 NM of Stansted.

1.3 Function

TC Stansted provides Approach and Approach Radar Control functions as defined in CAP 493 (MATS Part 1).

Specific functions are:

1.3.1 Intermediate Director (INT)

- Accepts releases and provides control for traffic inbound to Stansted and Cambridge from London Terminal control until onward transfer
- Accepts releases and provides control for Luton traffic via ABBOT until transfer to TC Luton
- Controls overflights of Stansted airspace and delegated airspace
- Provides initial sequencing for all approach types
- Executive coordination with other units except on a case-by-case delegation to FIN
- Provision of UK Flight Information Services (subject to workload) within the vicinity of Stansted airspace

1.3.2 Final Director (FIN)

- Provides control of traffic transferred by INT until transfer to Aerodrome Control
- Controls departures following the BKY/NUGBO/UTAVA SIDs
- Provides vectoring to final approach stages and surveillance radar approaches where appropriate
- Coordinates with AIR for all non-standard IFR and SVFR departing traffic as well as coordinating releases with AIR when required
- Provides control for all VFR and SVFR flights operating within Stansted Class D airspace and coordinates with AIR as required
- Provides clearances and releases for IFR traffic departing Cambridge and joining the ATS route network via ADNAM.

Chapter 2 Radar Director General Operational Procedures

2.1 General Procedures

INT shall accept releases for traffic inbound to Stansted and Cambridge via LOREL and ABBOT. INT shall accept releases for traffic routing to Luton via ABBOT, which is only permitted via LOGAN 2A (cruising FL100 and below) or DET 2A (cruising FL170 and below). All other Luton traffic shall be routed via ZAGZO.

FIN will control traffic inbound to Stansted after transfer from INT and will control departures via BKY, UTAVA and NUGBO until transfer to London Terminal Control. FIN will provide control to traffic transferred from Cambridge APC joining controlled airspace via BKY.

INT is the master director and is responsible for executive coordination and overall flow of traffic through TC Stansted airspace. This does not preclude FIN from coordinating with other agencies as required. Both directors will manage their own electronic flight progress strips.

2.2 Inbound Releases

INT will receive inbounds to LOREL and ABBOT from London Terminal Control. Traffic is released in level order and will be subject to an abbreviated release, specifying:

- Hold Name
- Callsign
- Cleared level

Example *"LOREL release, EZY123 at 9."*

The electronic transfer of the aircraft track data-block by London Terminal Control for an aircraft routing to LOREL/ABBOT is considered an 'electronic abbreviated release' with the same conditions as an abbreviated release issued verbally. INT shall confirm the cleared level reported by the pilot on transfer matches the acceptance level displayed in the data-block.

Any other releases must be coordinated in full.

2.3 Transfer of Data and Control between Directors

Transfer of control from INT to FIN is not to be carried out until the aircraft is clear of confliction with any aircraft remaining under the control of INT unless otherwise coordinated

Transfer of data and control from INT to FIN shall be by electronic transfer of the aircraft track data-block and is to be coincident with the transfer of communication. The track is to be accepted once the receiving controller has RT contact with the pilot.

The electronic data-block shall be updated prior to transfer with the cleared level, assigned heading and any speed restriction.

To reduce RT congestion, pilots shall normally be told to:
"Contact Stansted Director 136.2 with callsign only."

2.4 Identification and SSR Validation and Verification Procedures

All aircraft under the control of TC Stansted must be identified, the assigned SSR code validated, and Mode C return verified. Except where described below this is to be by one of the methods described in MATS Part 1. Aircraft transferred from another radar unit either by standing agreement or individual coordination are deemed to have been validated and the Mode C return verified if they are squawking their allocated unique code.

Aircraft departing London Stansted which are automatically code-callsign converted (correlated) with the correct callsign and are not displaying a squawk error (DUPE) indicator within the track data-block are deemed identified and validated. The first radar controller working these aircraft must verify the Mode C return.

Aircraft departing Cambridge, any other unit outside controlled airspace or displaying a squawk error indictor may **not** be identified in this way and shall be instructed to IDENT or identified by another method regardless of whether automatic code-callsign conversion has taken place.

2.5 Separation Requirements for TC Stansted

TC Stansted controllers may apply reduced radar separation of 3 NM between aircraft provided that:

- Both aircraft are identified, and
- If greater than 3 NM, the appropriate wake turbulence separation is applied, and
- If applied against an aircraft under the control of another agency, direct voice communication is available between the controllers, and the other agency must also be approved to apply reduced radar separation.

  Note: *All London TC sectors, TC approach units (including RAF Northolt), Cambridge, Farnborough and Southend APCs are authorised to apply 3 NM radar separation.*

2.6 Terrain and Obstacle Clearance

Within the Surveillance Minimum Altitude Area (SMAA) the lowest level that can be assigned Is 1700 ft. Aircraft within the Final Approach Vectoring Areas (FAVAs) established on an instrument approach or are cleared to establish at an angle of 40° or less may descend to 1500 ft.

The Minimum Sector Altitude (MSA) within 25 NM of Stansted is:

NW	NE	SW	SE
2000 ft	1800 ft	2100 ft	1700 ft

Stansted ATC SMAA chart: **AD 2.EGSS-5-1.**

2.7 Change to MSL Procedure

When a change to the London QNH results in a new MSL, the first controller within the London TMA to note the change shall notify other units of the change. This controller shall coordinate an agreed effective change time that is at least 5 minutes from the pressure change was noted. Aircraft operating on the old MSL are deemed separated from the Transition Altitude until the new MSL is in effect.

Chapter 3 Inbound Procedures

3.1 Information to Arriving Aircraft

After an arriving aircraft has made its initial call to INT, the following information shall be passed as soon as practicable:

- Runway in use and the type of approach, if not already received from the ATIS
- Current ATIS code
- LVP if in operation, if not already received from the ATIS
- Any delay to be expected.

Except for traffic transferred from INT to FIN *"callsign only"*, all TC Stansted controllers are to confirm the cleared level of an aircraft coming under their control on first RT contact. If it is not volunteered by the pilot it is to be requested and verified by the receiving controller before giving any executive instruction. In addition, INT is to confirm aircraft type, including type variants.

Aircraft that have received the information above must be kept informed of the following until they have landed:

- Significant changes in the meteorological and runway conditions
- Relevant reports from other pilots
- Implementation or cancellation of LVP.

3.2 Standard Arrival Routes (STARs)

3.2.1 Main STARs

Designator	Route
AVANT 1L	AVANT – OCK – VATON – BPK – BKY – BUSTA – LOREL
BANVA 1L	BANVA – UNDUG – MAY – VATON – BPK – BKY – BUSTA – LOREL
DET 2A	DET – LOFFO – ABBOT
FINMA 1L	FINMA – BOMBO – BKY – BUSTA – LOREL
LISTO 1L	LISTO – PEDIG – ROGBI – FINMA – BOMBO – BKY – BUSTA – LOREL
LOGAN 2A	LOGAN – CLN – ABBOT
MEGEL 1A	MEGEL – DITOB – LAPRA – ABBOT
RINIS 1A	RINIS – IDESI – LAPRA – ABBOT
SILVA 1L	SILVA – BOMBO – BKY – BUSTA – LOREL
SIRIC 1L	SIRIC – NIGIT – VATON – BPK – BKY – BUSTA – LOREL
TELTU 1L	TELTU – VATON – BPK – BKY – BUSTA – LOREL
TOSVA 1A	TOSVA – IDESI – LAPRA – ABBOT
XAMAN 1A	XAMAN – IDESI – LAPRA – ABBOT

3.2.2 Stack Switching STARs

Designator	Route
ABBOT 1Z	ABBOT – TABIS – BUSTA – LOREL
BPK 1X	BPK – ADNAM – ABBOT
BKY 1X	BKY – ADNAM – ABBOT

3.3 Holding Procedures

The table below indicates the holding areas available for Stansted traffic:

Hold	Inbound Course	Direction	Holding Levels	Holding Speed	Notes
LOREL	187°	Left	FL70-140	220 kts	4.0 NM holding
ABBOT	264°	Right	FL80-140	220 kts	6.0 NM holding

***Note**: LOREL holding shall not take place below FL90 due to interaction with Luton traffic.*

3.3.1 Holding Pattern Separation

Holding traffic at LOREL and ABBOT are separated from each other and ZAGZO up to and including FL140. Holding above FL140 at LOREL is not separated from traffic at ZAGZO.

3.3.2 Level Allocation

MSL at LOREL is allocated to FIN.

MSL at ABBOT is allocated to INT.

3.4 Inbound Releases

The release points for Stansted are:

- LOREL from TC North East
- ABBOT from TC East

3.5 Transfer of Communication Procedures

Terminal Control sectors shall transfer traffic inbound to each stack in the correct level order for the holding facility and in sufficient time for holding instructions to be passed. If not possible, London Terminal control shall instruct the aircraft to hold prior to transfer.

3.6 Expected Approach Times (EATs)

Expected approach times are not issued. The arrival order is derived from the stack arrival time subject to tactical considerations.

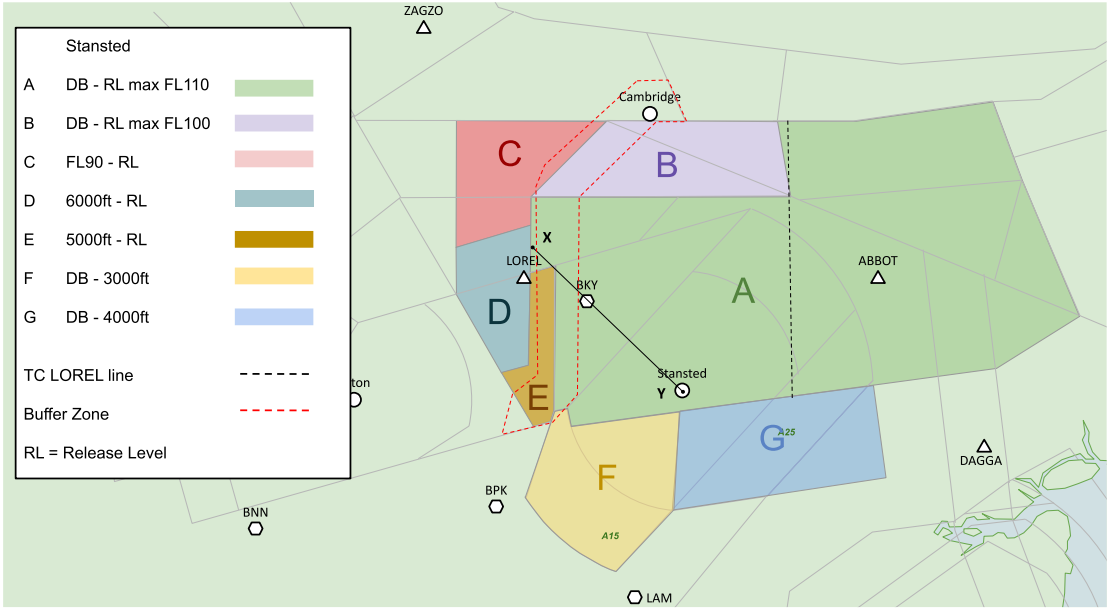
Where traffic is holding, INT shall provide an expected **delay** in increments of 5 minutes up to 20 minutes, after which traffic may be informed *"delay not determined"*.

Chapter 4 Procedures for Intermediate and Final Approach

4.1 Radar Manoeuvring Areas (RMA)

4.1.1 Stansted RMA

Figure 1 – Stansted RMA



4.1.2 Restrictions within the Stansted RMAs

4.1.2.1 Area A

Area A is delegated to TC Stansted at MSL and below. Stansted may use Area A to vector traffic from designated base up to the Release Level or FL110, whichever is lower.

4.1.2.2 Area B

Area B is delegated to TC Stansted at MSL and below by TC North East. Stansted may use Area B to vector traffic from LOREL from designated base up to the Release Level or FL100, whichever is lower.

4.1.2.3 Area C

Area C is delegated to TC Stansted at FL90 to Release Level at LOREL by TC North East. TC Luton is delegated airspace below FL90.

4.1.2.4 Area D

Area D is delegated to TC Stansted at 6000 ft to Release Level at LOREL by TC North East. TC Luton is delegated airspace below 6000 ft.

4.1.2.5 Area E

Area E is delegated to TC Stansted at 5000 ft to Release Level at LOREL by TC North East. TC Luton is delegated airspace below 5000 ft.

4.1.2.6 Area F

Area F is delegated to TC Stansted at 3000 ft and below by TC North East. Note therefore that Stansted may not climb departures above their SID levels while in Area F.

4.1.2.7 Area G

Area G is delegated to TC Stansted at 4000 ft and below by TC North East.

4.1.2.8 TC LOREL Line

The 'TC LOREL line' is the sector boundary between the TC sectors delegating Area A. To the west of the line, Area A is delegated by TC North East. To the east of the line, Area A is delegated by TC East. This line can be displayed by turning on the 'TC North East' boundary in the sector file 'STAR' section.

Traffic via LOREL shall not cross the TC LOREL line until MSL or below.

Traffic via ABBOT shall typically only cross the TC LOREL line at or below MSL. Where TC Stansted has released LOREL traffic higher than MSL, traffic via ABBOT may cross the TC LOREL line provided it remains underneath this traffic AND is descending to MSL or below.

4.1.2.9 X-Y Line

The X-Y line runs from the Stansted Airport overhead via BKY and extended to the edge of the RMA. This line is used to separate inbounds from outbound traffic being worked on separate frequencies (INT and FIN).

For both runways, INT shall not descend traffic below MSL+1 until north-east of the XY line unless coordinated with FIN.

When Runway 04 is in use and unless coordinated between INT and FIN, INT shall not descend inbounds below 6000 ft north-east of the XY line. FIN shall not climb departures above SID levels until crossing the XY line.

4.1.3 Radar Buffer Zone

A 3 NM wide radar buffer zone is established between the TC Luton and TC Stansted RMAs. The buffer zone permits autonomous radar operation by both units whilst minimising coordination. Neither unit is permitted to enter the buffer zone without prior coordination with the other unit, thus ensuring that 3 NM radar horizontal separation will always exist between aircraft under the control of TC Luton or TC Stansted without the need for coordination.

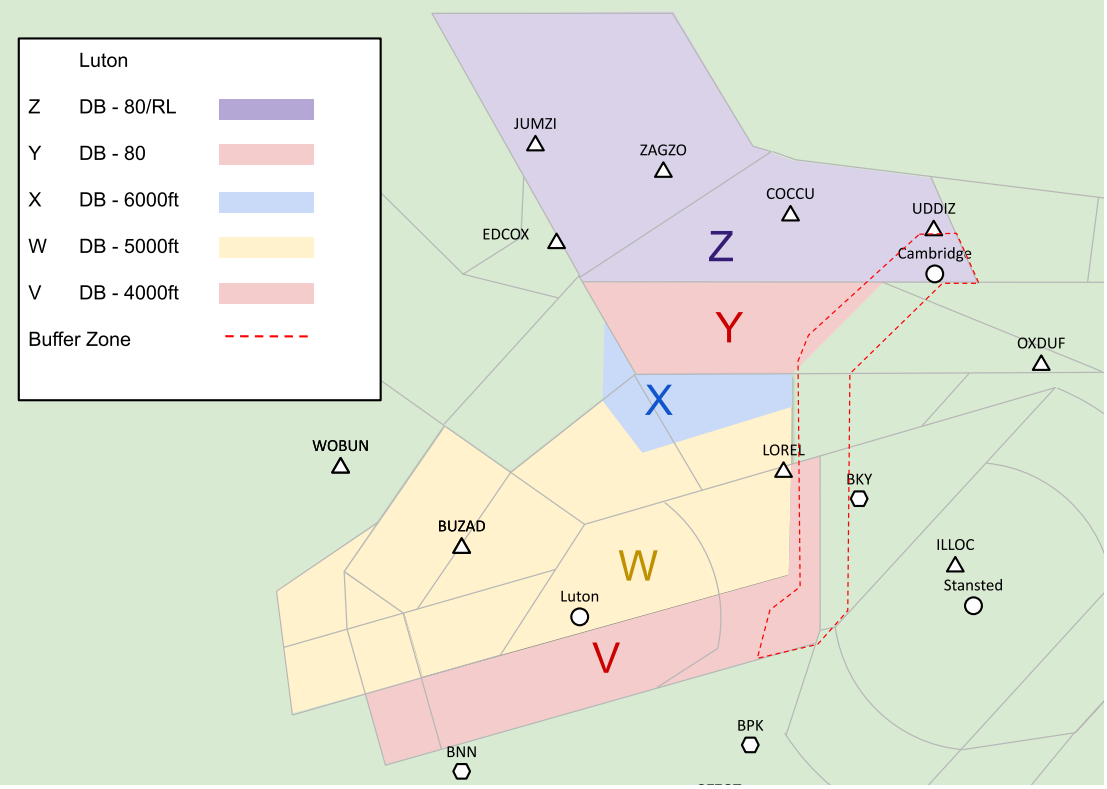
The buffer is established from the declared base of controlled airspace up to the maximum level of the adjacent Luton RMA. Thus, some portions of the Stansted RMA sit above the radar buffer. This permits certain Stansted traffic to "cross" the buffer, for example LOREL inbounds or NUGBO/UTAVA outbounds.

The buffer zone is permanently active in a single configuration and must always be displayed on the situation display.

If an aircraft inadvertently enters the buffer zone, coordination must be effected between TC Luton and TC Stansted **without delay** to ensure separation is maintained.

4.1.4 Luton RMA

Figure 2 – Luton RMA



4.2 Continuous Descent Approach Procedure (CDA)

4.2.1 General Procedures

The aim of the CDA procedure is to provide pilots with the ATC assistance necessary for them to achieve a continuous descent during intermediate and final approach, at speeds which require minimum use of flap so as to minimise noise. The procedure requires ATC to pass adequate *"range from touchdown"* information.

The CDA procedure should be used for all arrivals into Runway 22. Range from touchdown shall typically be provided on first descent below MSL and again on first contact with FIN. Should the range become inaccurate, a new range shall be issued.

When Runway 04 is active, a continuous descent approach would put aircraft in conflict with departures from Luton and London City and therefore this technique is not used.

4.2.2 Speed Control

The standard speeds to be employed are as follows:

- 220 knots or a higher minimum clean speed in the intermediate approach phase
- 165-180 knots or less in the final approach phase
- Regardless of the traffic situation and unless coordinated with AIR, 165 knots when established on the approach between 2500-3000 ft until 5 NM from touchdown.

  Note: *Pilot readbacks to 165 kts instructions within 160-170 kts do not need to be challenged unless required for separation purposes.*

For aircraft unable to maintain 165 +/- 5 kts, FIN shall ascertain the final approach speed and inform AIR.

Where traffic levels are low, speed restrictions may be more appropriate than speed control to allow pilots some flexibility in managing their aircraft. For example, "220 knots or less".

If FIN is split, traffic should be transferred at 220 knots unless agreed otherwise between INT and FIN.

4.3 Intermediate Approach Procedures

4.3.1 Inbound Traffic to LOREL

TC North East shall release traffic via LOREL at MSL+1 with an overriding minima of FL90, or the next available level above to a maximum of FL110.

Occasionally, TC North West may transfer traffic via LOREL directly to INT. In this case, the release is still issued by **TC North East** and thus any coordination should be directed to TC North East.

4.3.1.1 Descent before release point

Via	Release
BOMBO	Descent to FL90. Descent below FL90 within Stansted RMA if issued a heading and will not hold.

Via	Release
BPK	Descent to FL90. Descent below FL90 within Stansted RMA if issued a heading and will not hold.

4.3.1.2 Vectoring before release point

Via	Conditions
BOMBO	FL110 and below, passing the eastern edge of N601 *(Note 1)*
BPK	Passing the eastern boundary of N601 **and** the northern boundary of Q295

***Note 1**: Traffic vectored prior to release point within Area C must remain at least 3 NM from the Luton RMA Area Z.*

4.3.2 Inbound Traffic to ABBOT

TC East shall release traffic to Stansted descending to MSL+1 or the next available level above to a maximum of FL110.

Where traffic routes via LAPRA (i.e. into Clacton CTA 3), the base of controlled airspace is FL85. Where MSL+1 is FL80, TC East will typically release at FL90 or the next available level, to enable an early handoff.

4.3.2.1 Descent before release point

Via	Conditions
LAPRA	Released for descent.
CLN	Released for descent at or abeam CLN.
LOFFO	Released for descent passing the northern edge of Q295.

4.3.2.2 Vectoring before release point

Via	Conditions
LAPRA	Released for turn towards Area A, to remain north of northern edge of Q295.
LOFFO/CLN	Released for turn passing the northern edge of Q295.

4.3.3 Initial Sequencing

4.3.3.1 Runway 22 in use

INT shall not descend traffic below MSL+1 until on the north-east side of the X-Y line unless coordinated with FIN.

Traffic shall be positioned on a suitable downwind heading on either side of the airport. Traffic should be transferred to FIN as soon as possible after first descent below MSL is issued. INT will typically not descend below 4000 ft without coordinating with FIN.

4.3.3.2 Runway 04 in use

INT shall not descend traffic below MSL+1 until on the north-east side of the X-Y line unless coordinated with FIN.

Traffic shall be positioned on the north side of the RMA on a downwind heading at or descending to 6000 ft before transfer to FIN. INT shall not descend traffic below 6000 ft on the north-side of the airport.

Where INT wishes to vector traffic to the south side, it shall be coordinated with FIN, including position in the landing order.

4.4 Final Approach Procedures

4.4.1 Responsibility

FIN is responsible for radar vectoring to final approach and the issuing of approach clearances, including visual approach clearances where appropriate.

FIN shall typically retain inbound aircraft on frequency until they are either established on the final approach track or able to continue visually.

4.4.2 Descent Restrictions

FIN may descend any traffic transferred from INT subject to known traffic.

Traffic for Runway 22 should follow a Continuous Descent Approach as described in APC 4.2.

To keep aircraft within the Stansted RMA during 04 approaches, FIN shall typically instruct the pilot to be level at 3000 ft at BPK DME 9. Where this is not possible, FIN shall continuously monitor the traffic's descent profile.

Example: *"ABC123 descend to altitude 3000 ft to be level by 9 DME BPK."*

4.4.3 Vectoring Restrictions

FIN must not vector any inbound traffic into the radar buffer zone.

TC Stansted is responsible for ensuring separation between Stansted inbounds for Runway 04 and London City and Luton departures via BPK. This is unknown traffic to FIN, therefore, inbounds must not be vectored within 3 NM of the London City BPK SID track unless level at 2000 ft or below.

A 3 NM mark is selectable on the EuroScope situation display to assist controllers.

4.4.4 Avoidance of Noise Sensitive Areas

TC Stansted should avoid vectoring aircraft over the noise sensitive areas listed in GEN 2.1.

4.4.5 Final Approach Spacing

FIN is responsible for applying final approach **spacing** until 4 NM from touchdown, accounting for any 'catch-up' due to speed/performance differences.

The requirement to apply radar and wake turbulence **separation** until **touchdown** (see below) overrides any spacing guidance or agreement.

Typically, FIN should apply 6 NM spacing to allow for a departure between every inbound. It is the responsibility of AIR to monitor runway arrival spacing and to notify any required increases in arrival spacing to FIN.

Controllers should note that a reduced landing rate and therefore increased spacing is required during LVP – see guidance in GEN 3.2.6.

4.4.6 Final Approach Separation

FIN is responsible for applying both radar and wake turbulence **separation** on final approach until touchdown.

The radar separation minima are described in APC 2.5 and wake turbulence separation between aircraft on final approach shall be applied in accordance with MATS Part 1 (CAP 493).

The 'catch-up' or compression that occurs after the leading aircraft passes 4 NM from touchdown must be factored into the spacing provided to ensure that radar and wake turbulence separation are provided until touchdown. In most cases, adding 1 NM to the required **separation** between aircraft and maintaining this until 4 NM from touchdown will act as a sufficient buffer.

> ***Note 1:*** *FIN shall not assume Reduced Separation in the Vicinity of an Aerodrome is being applied without coordination.*
>
> ***Note 2:*** *Aircraft performing a visual approach are responsible for their own wake turbulence separation.*

If either radar or wake turbulence separation are eroded below the required minima, the approach must be discontinued and the aircraft taken off the approach.

4.4.7 Coordination with AIR

FIN shall provide AIR with a 10 NM range check with regards to:

- Traffic conducting other than an ILS approach (type of approach must be specified)
- Traffic which is not code-callsign converted
- Traffic which is conducting a training approach or not intending to land.

4.4.8 Transfer of Communication

Unless otherwise required, on transfer of control from FIN to AIR, controllers should use the phrase:
"Contact Stansted Tower 123.805 with callsign only."

4.5 Missed Approach Procedures

AIR shall notify TC Stansted of a missed approach through the UKCP Go-Around Alarm wherever possible. They shall then immediately contact FIN who may choose to issue tactical headings to ensure separation. Neither departing traffic or go-around traffic should be climbed out of the RMA. FIN will then clarify whether to pass the missed approach to FIN or INT depending on the traffic situation.

Typically for Runway 22, traffic needs to be sequenced against LOREL inbounds and so would be transferred to INT. For Runway 04, traffic should be coordinated a position in sequence and may be retained by FIN if practical.

The next departure following a go-around is subject to release from FIN.

4.6 RNP Approaches

RNP approaches are established to both runways. Only RNP Z approaches to Runway 04 or Runway 22 shall be used on VATSIM, since RNP Y approaches are for 'maintenance thresholds' for Runway 04C and Runway 22C.

The position of the IF prevents controllers from applying the MATS Part 1 standard of establishing aircraft on own navigation prior to the IF without vectoring outside of the RMA for Runway 04 or vectoring outside of controlled airspace and/or requiring establishing above the platform altitude for Runway 22.

As such, aircraft requesting an RNP Z approach will be radar vectored to establish on the final approach track inside the IF but at least 2 NM prior to the FAF. The pilot must be informed that they will be vectored inside the IF.

Traffic shall be vectored to establish the final approach track at no greater than 45° before being *"cleared RNP Zulu approach runway (designator), QNH (hPa)".*

***Note:** The Stansted QNH must be included in the RNP approach clearance.*

When clearing an aircraft for an RNP approach, the instruction clears the aircraft on both the lateral and vertical profile of the procedure. As such, controllers may use the following phraseology to emphasise that an aircraft is not cleared on the vertical profile.

Where a pilot indicates that they cannot accept vectors to a position inside the IF then the controller shall either:

- Coordinate to vector outside the RMA for Runway 04, or
- Establish whether the pilot can accept vectors outside controlled airspace and/or establish above the platform altitude for Runway 22, or
- Off an alternative approach.

4.6.1 Coordination of RNP Approaches

AIR must be informed whenever an aircraft is conducting an RNP approach. FIN shall inform AIR no later than 10 NM from touchdown.

Chapter 5 Outbound Procedures

5.1 General

Departure separation is the responsibility of AIR, with timed intervals derived based on route and the departure speed groups. AIR may coordinate a more expeditious release if required with FIN.

5.2 Identification of Departing Traffic and SSR Validation/Verification

FIN is responsible for identification, and SSR validation and verification of all outbounds via UTAVA, NUGBO and BKY, as well as all non-standard departures in accordance with APC 2.4.

5.3 Departure Speed Limits

In order to improve departure flow and assist TC controllers to maintain separation between aircraft a speed limit of 250 knots IAS applies to all outbound SID aircraft below FL100. This restriction must not be removed by TC Stansted.

5.4 Departures Subject to Radar Approval

AIR is to obtain a **departure release** from **Stansted FIN** prior to issuing take-off clearance for:

- Traffic to EGGW/EGSC
- Non-airways IFR and SVFR departures
- Airways departures unable to fly or deviating from a SID/NPR
- Any subsequent SID departure after the above categories
- The first departure following a runway change
- The first departure following a missed approach
- VFR departures not routing via standard routes.

AIR is to obtain a **departure release** from **the receiving controller** (i.e. London TC or FIN) prior to issuing take-off clearance for:

- Aircraft types not on the speed table or when the following aircraft is 3 groups faster than the leading aircraft, plus the subsequent departure
- Whenever AIR intends to depart successive aircraft which would be separated by less than the specified time interval
- DET SID departures.

AIR is to obtain a **departure release** from the relevant **TC controller** for departures to the LTMA, as detailed in ADC 1.5.

Aircraft subject to a release must depart within + 5 minutes of the release time.

AIR will normally clear all other departures for take-off without prior reference to TC. Such departures will be transferred direct to the appropriate TC Sector (see ADC 3.10), unless otherwise instructed by FIN. AIR will inform FIN if an aircraft is observed to deviate from the NPR to the extent that departure separation may be eroded.

5.6 Responsibility for SID Departures

FIN shall be responsible for SID departures via UTAVA, NUGBO and BKY. BKY traffic shall leave controlled airspace and may be provided a service outside of controlled airspace by FIN, or coordinated and transferred to INT for the provision of UK FIS, or transferred to Cambridge APC or another unit as appropriate.

NUGBO and UTAVA departures are transferred from AIR to FIN. FIN is not permitted to vector this traffic until it enters RMA Area A as they climb above Area F.

FIN may climb these departures only within the RMA restrictions to **FL80** (or FL90 when the MSL is FL90) and monitor their climb profile to ensure:

- The aircraft will not infringe Luton airspace
- MSL will be achieved by the eastern edge of N601 (i.e. 8 NM after BKY)

FIN will then transfer traffic to TC North West when clean of all inbounds via LOREL released to TC Stansted.

Due to the risk of Luton airspace infringement from traffic misinterpreting a climb instruction, FIN shall always instruct aircraft departures to 'climb now'.

Example: *"EXS123, climb now flight level 8-0."*

5.6.1 Westerly Operations

UTAVA/NUGBO departures cannot be climbed above their initial 4000 ft level until within RMA Area A.

Traffic is at risk of breaching Luton RMA Areas V and W if they do not climb with sufficient gradient. When Luton is operating on Runway 25, the risk of separation loss is much greater. FIN will therefore monitor this traffic to ensure it is climbing through 5000 ft before turning at BKY and 6000 ft by the Greenwich Meridian.

Where Stansted has been unable to issue a climb due to Stansted traffic, it should vector the aircraft within Stansted airspace and ensure the appropriate climb gradient. Where slow-climbing traffic is identified early, coordination with TC Luton may be effective.

The benefit of early handoff of this traffic to TC North West is outweighed by the risk of infringing Luton airspace due to a wide turning angle. FIN shall retain this traffic until it has turned west at BKY.

5.6.2 Easterly Operations

UTAVA/NUGBO departures should not be climbed above 5000 ft until passing the XY line without coordination between FIN and INT.

Where Luton is operating on Runway 25, the risk of separation loss is much higher, therefore FIN will monitor this traffic to ensure it is climbing above 5000 ft when instructed. Due to the risk of misinterpreting a climb instruction, FIN shall always instruct aircraft to 'climb now'.

Controllers should aim to proactively coordinate early climb prior to the XY line with INT so as to minimise the risk of conflict with Luton traffic.

5.7 Non-Airways Departures

All jet aircraft and propeller driven aircraft with a maximum authorised weight of 5700 kg or greater departing on IFR routes not intending to join the ATS route network shall be issued departure instructions clearance that conform to the published Noise Preferential Routings published in the UK AIP.

FIN is responsible for the control of non-airways departures whilst within the Stansted CTR/CTA. Upon leaving controlled airspace FIN should coordinate and transfer the outbound to INT or any appropriate unit for the provision of UK FIS.

Non-airways departures are subject to release from FIN.

5.8 Positioning Flights

5.8.1 Luton

Traffic to Luton will be cleared via a BKY SID to 4000 ft. GMP will inform TC Luton INT of the traffic to confirm if any delay is required. Upon request for approval by GMP, TC Luton will confirm if they can accommodate the traffic and issue a delay if appropriate. The delay shall be issued as follows:

1. Less than 10 minutes: GMP to inform the pilot of the delay. No further coordination required
2. 10 to 20 minutes: GMP will inform the pilot of the delay and then inform FIN when start-up clearance is issued
3. Greater than 20 minutes: Either specified as *"greater than 20 minutes"* or *"delay not determined"*. GMP to inform pilot of *"delay not determined, at least 20 minutes"* and ask whether they wish to proceed. GMP to re-coordinate at 20 minutes.

TC Stansted FIN will be pre-noted when the traffic starts. Traffic to Luton requires a departure release from FIN and FIN is to obtain a release from TC Luton INT prior to issuing their release to Stansted AIR.

FIN will coordinate appropriate positioning and transfer to TC Luton INT on a heading through the radar buffer.

5.8.2 Cambridge

Traffic to Cambridge will be cleared via a BKY SID to 4000 ft. GMP will inform Cambridge APC of the traffic to confirm if any delay is required.

TC Stansted FIN will be pre-noted when the traffic starts. Traffic to Cambridge requires a departure release from FIN but FIN is not required to obtain a release from Cambridge.

FIN shall clear the aircraft to leave controlled airspace and coordinate with Cambridge APC per APC 6.2.3.

5.10 DET SID Departures

Stansted DET SID departures route through the TC Thames RMA at levels which conflict with London City traffic, therefore they require close coordination.

AIR is required to pre-note TC Thames (TMS DIR) **prior** to the aircraft entering the runway and also to obtain a release from the receiving controller (TC North East (or top-down) or TC Stansted in the absence of Area Control).

TC North East is then required to coordinate with TC Thames prior to climbing the departure above 5000 ft. In the absence of TC North East (or top-down control) TC Stansted INT is required to perform the following coordination with TC Thames:

- Coordinate with TMS DIR (regardless of London City runway in use) as soon as practical. This does not have to be prior to issuing the release but must be before issuing climb above 5000ft or deviating traffic from the SID track
- Coordination with TMS DIR shall be to resolve conflict with London City departures and arrivals to London City and Biggin Hill in accordance with the following principles:
    - TC Stansted is not permitted to climb the traffic above 5000 ft or deviate from the SID route unless coordination has occurred with TMS DIR
    - TMS DIR is responsible for ensuring separation for all TC Thames traffic against the Stansted departure and shall agree the point at which the Stansted departure may be climbed to MSL
    - If this is not possible due to conflicting traffic, TMS DIR may elect to work the Stansted departure and climb it to MSL within the Thames RMA - TMS shall specify if the aircraft is to contact TMS DIR or LC DIR
    - TC Stansted shall specify whether the traffic is to return to TC Stansted, be transferred to TC South East or another course of action
- TC South East shall not vector the traffic east of the SID track until it has reached MSL+1 or higher. This is to protect London City departures transferred on the standing agreement at MSL in the vicinity of EKNIV.

Chapter 6 Adjacent APC Units

6.1 Luton (EGGW)

6.1.1 Arrivals via ABBOT

RNAV5 or low-level traffic may route via ABBOT to Luton. This traffic will be released to TC Stansted INT with the same conditions as Stansted arrivals.

TC Stansted INT will individually coordinate this traffic with TC Luton INT, typically:

- At, or descending to, altitude 5000 ft Luton QNH, and
- Tracking west on a heading north of LOREL clean of Stansted inbound and outbound traffic.

Stansted INT will specify whether traffic is released for turn. If there is any doubt as to the release conditions, Luton INT shall clarify with Stansted INT prior to turning the aircraft.

Traffic is released for further descent remaining within the confines of the Luton RMA.

During periods of light traffic and when Runway 25 is in use, TC Stansted may, with the prior agreement of TC Luton, vector inbounds via ABBOT onto the Runway 25 localiser as described below.

6.1.2 Vectoring for Runway 25

TC Stansted INT may vector Luton inbound traffic (via ABBOT) onto the Runway 25 ILS localiser subject to the following conditions:

- Prior coordination has been effected with Luton INT, and
- The aircraft is positioned to establish the localiser at a range of 25 NM or less, and
- Stansted INT does **not** issue descent instructions on the glidepath, and
- The aircraft is **not** cleared to descend below altitude 4000 ft Luton QNH.

6.2 Cambridge (EGSC)

6.2.1 Departures

Traffic departing Cambridge to join the ATS route network will route via ADNAM or EBOTO. Cambridge APC will coordinate with TC Stansted for joins via ADNAM and TC Luton at EBOTO.

6.2.2 Departures via ADNAM

Departures via ADNAM will route to DET, CLN or TEDSA to join the ATS route network. Cambridge APC will issue a standard departure instructions with a clearance limit of ADNAM and 3000 ft Stansted QNH and an allocated UKCP SSR code but will **not** issue clearance to join controlled airspace.

All departures via ADNAM will be subject to a release from TC Stansted FIN, who will obtain a release from London Terminal Control. FIN shall coordinate with TC North East for traffic via DET and TC East for traffic via CLN/TEDSA. A joining clearance shall be agreed between London Terminal Control and FIN before onward transfer. Traffic shall only be transferred to Area Control once inside controlled airspace.

6.2.3 Arrivals

Arriving traffic via the ATS route network will follow the Stansted STARs before being routed to the Cambridge (CAM) NDB. They will be cleared to leave controlled airspace and transferred to Cambridge APC after coordination to agree an acceptance level (typically 3000 ft when there is no conflicting traffic). Traffic is to leave controlled airspace on own navigation to CAM.

6.3 Cranfield (EGTC)

6.3.1 Departures via BPK

TC Luton is responsible for coordinating ATS route joins via BPK with TC North East. This traffic will route clear of the Stansted RMA unless coordinated with TC Stansted.

6.3.2 Arrivals via ABBOT

Arriving traffic via the ATS route network from the east will route to ABBOT. They are to be cleared to leave controlled airspace by descent and transferred to Cranfield APC after coordination. Cranfield is a procedural unit and should be given early warning of pending inbounds; Cranfield may provide an acceptance level for traffic into the Cranfield (CIT) NDB hold.

Traffic will require coordination with TC Luton INT if it is to route through the Luton RMA; traffic should preferentially be routed to leave the Stansted RMA to the north before resuming own navigation to CIT.

LOW | LOW LEVEL PROCEDURES

Chapter 1 Airspace

1.1 Classification

The Stansted Control Zone (CTR) is classified as Class D from the surface up to 3500 ft. The Stansted Control Areas (CTA) have variable bases and are classified as Class D up to 3500 ft. Aircraft are permitted to operate in VMC and IMC conditions under either VFR or SVFR as appropriate.

Portions of the Stansted CTR as designated are local flying areas as described in LOW 1.3 and depicted in Figure 3.

1.2 Transponder Mandatory Zones

Stansted CTA-1 and -2 have designated transponder mandatory zones (TMZ) sitting beneath the lateral confines of each CTA from the surface up to 1500 ft. Non-transponder traffic may be cleared into either TMZ by either TC Stansted or Farnborough APC (LARS) who will coordinate with TC Stansted.

1.3 Aerodromes in the Vicinity

Hundson Aerodrome is used for microlight activity during daylight hours up to altitude 1000 ft underneath the Stansted CTA-2 (within the TMZ-2). Flight is permitted within the Hundson Area that enters the south-west corner of the Stansted CTR without clearance from TC Stansted. Typically, traffic will squawk 7010.

Audley End (EGO2) is a grass airfield (Runway 36/18) that allows microlight and fixed wing activity to the north of Stansted. Traffic is permitted to operate in the Stansted CTR in the Audley End Operating Area up to 1500 ft without clearance from TC Stansted. Traffic in this area should squawk 7010.

Duxford (EGSU) is a licensed aerodrome to the north of Stansted and south of Cambridge. It lies underneath London TMA-6 and has 2 runways. The Duxford ATZ is a 2 NM circle around Duxford, up to 2000ft and lies completely within class G airspace. Duxford is the site of historic aircraft displays operated by the Imperial War Museum.

Andrewsfield (EGSL) is a grass runway (27/09) that operates fixed wing aircraft to the east of Stansted. The ATZ is a circle, 2 NM around the airfield up to 2000 ft AAL, a portion of which lies under the Stansted CTR and is used by Andrewsfield up to 1500 ft QNH without reference to TC Stansted. Circuit traffic operates at 700 ft QFE and right hand of either runway. Traffic entering the ATZ should make contact with Andrewsfield Radio.

North Weald (EGSX) is an unlicensed aerodrome that lies under Stansted CTA-2 to the south of Stansted, within TMZ-2. It has one operational runway.

Debden is a disused RAF field to the north of Stansted, within the Stansted CTR that serves as a VRP.

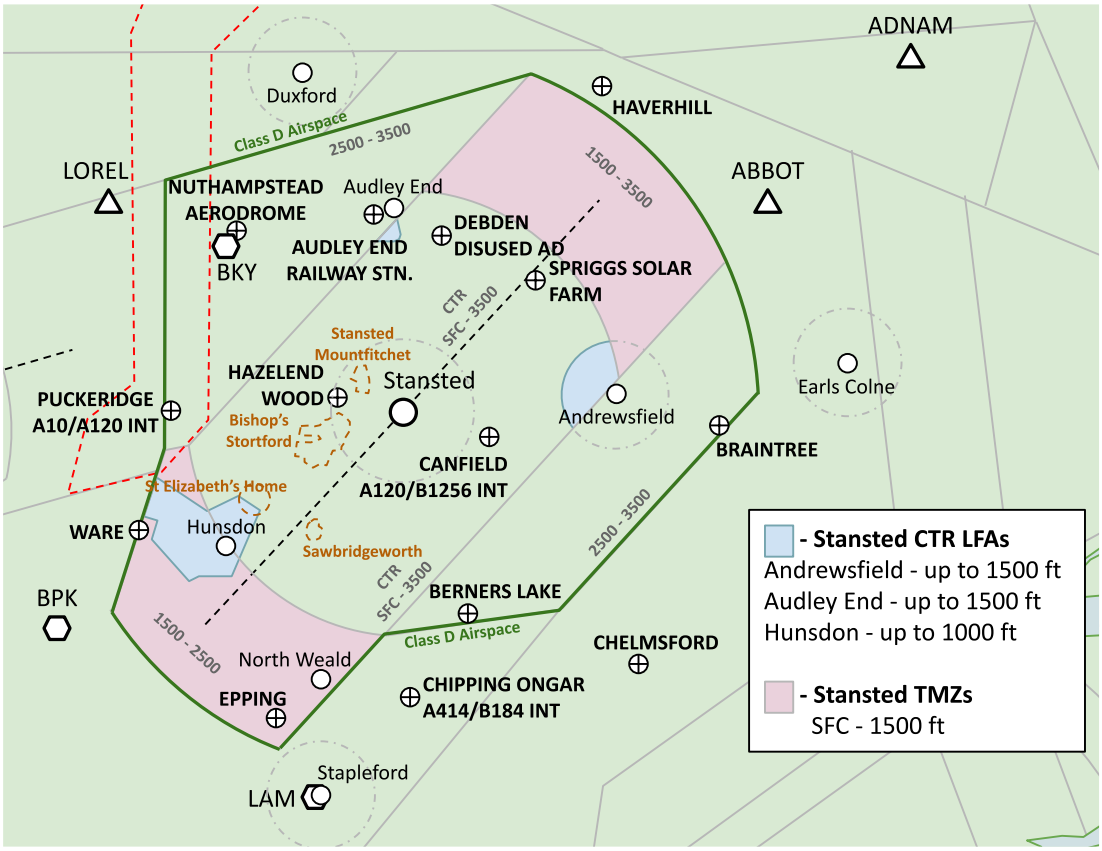
High Easter is a private airfield and gliding site located south of the town of Great Dunmow and south-east of Stansted.

1.4 Visual Reference Points (VRPs)

The following VRPs are for use by aircraft operating to and from Stansted Airport:

- Audley End Railway Station
- Berners Lake
- Braintree
- Canfield A120/B1256 Interchange
- Chelmsford
- Chipping Ongar A414/B184 Interchange
- Debden Disused Aerodrome
- Epping
- Hazelend Wood
- Nuthampstead Aerodrome
- Puckeridge A10/A120 Interchange
- Spriggs Solar Farm
- Ware

Figure 3 – Stansted Low Level Airspace



Chapter 2 VFR and SVFR Operations

2.1 Provision of Air Traffic Services

TC Stansted FIN is responsible for low level traffic within the Stansted CTR. If FIN is unable to accept the traffic due to high workload, then it is acceptable for INT to take responsibility for operation of VFR traffic providing it is coordinated with Stansted ADC.

2.2 SSR Code Allocations

7410 is issued to aircraft departing aircraft by Stansted ADC. TC Stansted shall change this code to an alternative unique code if identifying the departure.

7411 is issued by TC Stansted to arriving VFR aircraft. This code may be used to identify traffic if it is only allocated to one aircraft at any one time.

7402-7407 and 7412-7414 are allocated to TC Stansted. By convention, INT shall allocate from 7402 upwards and FIN from 7414 downwards.

Listening Squawks

7013 is allocated as the listening squawk when operating in the vicinity of Stansted airspace. It is not used by traffic operating in the Audley End or Hunsdon Areas. This code indicates the traffic is monitoring 120.625 MHz (INT), but the Mode C readout is considered unverified. Traffic using this code cannot be identified by use of the 'ident' method.

Additionally, aircraft maintaining a listening watch on TC Luton INT (129.550 MHz) may select the code 7013

2.3 VFR and SVFR Departures

Both VFR and SVFR traffic may be cleared by ADC without contact with TC Stansted. Such traffic will be cleared to depart via the below routes, not above altitude 2000 ft and issued the squawk 7410.

- Canfield A120/B1256 Interchange
- Audley End Railway Station (via M11)
- Nuthampstead Aerodrome via Hazelend Wood VRP
- Puckeridge A10/A120 Interchange via Hazelend Wood VRP

AIR will inform FIN immediately prior to departure for any VFR aircraft or request a release for any SVFR aircraft. FIN shall relay any relevant traffic information to AIR and AIR will transfer the traffic once clear of aircraft operating within the ATZ.

FIN shall change the allocated squawk code as soon as practical. SVFR traffic must be identified on a unique code before radar separation is applied against other traffic.

Clearances via any other route may be permitted, but will be coordinated prior to departure and subject to release by FIN.

2.4 VFR and SVFR Arrivals

VFR arrivals shall make initial contact with INT who will clear them into Stansted controlled airspace via a published VRP not above 2000 ft and issue the squawk 7411. This traffic

should be coordinated with FIN and will typically be transferred to FIN before entering controlled airspace unless FIN would prefer INT to retain the traffic.

Traffic from the west or southwest shall route to avoid the town of Bishop's Stortford (immediately south-west of Stansted). For this reason, traffic cleared via Puckeridge or Nuthampstead should be instructed by FIN to route *"via Hazelend"* rather than directly to a downwind.

Traffic will be coordinated with AIR and transferred with the aerodrome in sight.

SVFR traffic requires coordination between FIN and INT prior to clearance into controlled airspace to ensure separation against all traffic.

Chapter 3 Helicopter Operations

3.1 Helicopter Routes

Helicopter VRPs are established to assist with the arrival and departure of rotary aircraft. These are the northern edge of Hangar 12 and the Diamond Hangar to the south. Traffic cleared to these points shall always be instructed to hold.

Example: *"Route via Hazelend Wood, hold north of Hangar 12."*

3.2 Helicopter Departures

Helicopters operating VFR and SVFR are subject to the same procedures as fixed wing VFR/SVFR departures. AIR will transfer helicopter traffic once clear of traffic operating in the aerodrome vicinity. Traffic shall always be retained by AIR when crossing the active runway.

3.3 Helicopter Arrivals

Helicopter traffic is initially handled as documented for fixed wing VFR/SVFR arrivals, including the requirement to avoid Bishop's Stortford.

FIN will clear the traffic to the relevant helicopter VRP. The traffic shall then be coordinated with AIR and transferred when visual with the airfield and clear of traffic unknown to AIR.

Chapter 4 UK Flight Information Services (FIS)

MATS Part 1 details the services which may be provided outside controlled airspace. The provision of UK FIS is to be limited so that it does not adversely affect the service provided to aircraft inside controlled airspace.

Outside the hours of operation and/or boundaries of responsibility of adjacent units tasked with providing the Lower Airspace Radar Service (LARS), TC Stansted INT may provide UK FIS to traffic flying outside controlled airspace within 40 NM of the aerodrome.

The adjacent units tasked with providing LARS are Farnborough APC and Southend APC and so INT shall consider transferring traffic not entering/transiting Stansted airspace.

Controllers must not give a Deconfliction Service or radar vectors under a Traffic Service to aircraft below SMAA levels or minimum sector altitudes.

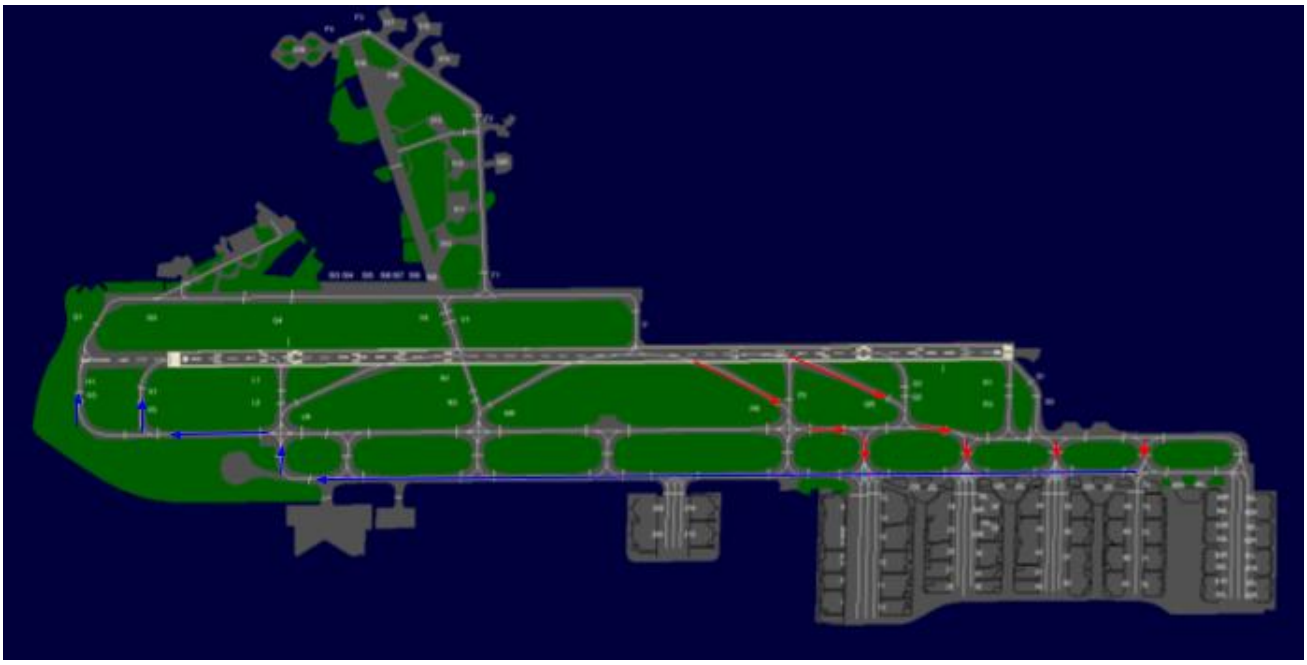
GLOSSARY

Abbreviation	Section
AC	Area Control
ADC	Aerodrome Control
AIR	Air Controller (i.e. Tower Controller)
APC	Approach Control
CTA	Control Area
CTR	Control Zone
DME	Distance Measuring Equipment
EAT	Estimated Approach Time
FIN	Final Director
FIS	Flight Information Service
FL	Flight Level
ft	Foot (feet)
GMC	Ground Movement Control
GMP	Ground Movement Planner
GS	Groundspeed
hPa	Hectopascal
IAS	Indicated Airspeed
ICAO	International Civil Aviation Organisation
ILS	Instrument Landing System
INT	Intermediate Director
Kts	Knots
LTMA	London TMA
MDI	Minimum Departure Interval
MHz	Megahertz
MSL	Minimum Stack Level
NM	Nautical Mile
RFC *	Released for Climb
RFD *	Released for Descent
RFT *	Released for Turn
SID	Standard Instrument Departure
SSR	Secondary Surveillance Radar
STAR	Standard Arrival Route
TC	Terminal Control

* Although these acronyms are not used in this document, they may be useful for controllers to be aware of as common notation in text coordination.

APPENDIX A - OPTIONAL TAXI ROUTES

Runway 04



Runway 22