

Departure Code of Practice (DCOP)



Introduction

The voluntary Code of Practice has been compiled for London Luton Airport by the Flight Operations and Air Traffic Control to give advice on the operational techniques aimed at improving the environmental impacts of aircraft operations through operational best practice.

The parts of this document will provide information relating to the ground operations and departure phases of flight, including the use of Auxiliary Power Units (APU's), single engine taxi operation, Continuous Climb Operations (CCO) and the Noise and Track Violation Scheme.

Nothing in this Code shall take precedence over the requirement for safe operations and control of aircraft at all times. For the avoidance of doubts, all recommendations are to be read as being subject to the requirements of safety and manufacturer/ aircraft flight manual limits. AMN and OSI should be followed, and the latest operational procedures are available on <u>OpsCom</u>.

Scope

This code covers aircraft operations at the terminal, aircraft taxi operations from runway to terminal and CCO. Interaction between, and requirements of, the airline operators, ground handlers, airport authorities and Air Traffic Controllers are considered for each. Although noise is covered by this Code, additional environmental impacts of aircraft operations are also considered including fuel-burn and CO².

Outline of Practice:

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3. Summary

Glossary

1. Ground Operations

1.1 Slot Co-ordination, Aircraft QC and Chapters

Aircraft operating in Luton are required to operate to strict noise regulations taking into account individual aircraft QC values and chapters. For slot co-ordination and further information you are requested to contact our slot co-ordination team – ACL.

1.2 APU Usage

In line with LLA Operational Safety Instructions, APU's are not to be used as a substitute for ground power. Airlines and their ground handlers are to ensure that APUs are used for the absolute minimum time necessary to meet operational needs.

Airlines/operators and handlers are to ensure that APU's are used for no more than 5 minutes after arrival on stand and no more than 30 minutes before planned departure.

1.3 Air Traffic Control

Pre-departure clearance by Data Clearance Link is available at LLA for suitably equipped aircraft. DCL (Data link) is available from EOBT - 18 to EOBT - 1. Flight crews should ensure that stand information is entered in the request carefully. Successful clearances must be accepted within the 5 minutes of receipt or a "revert to voice" message will be received.

Before calling for clearance, pilots shall ensure they have the current ATIS and are aware of the correct frequency to call for departure clearance.

DCL clearances are not automatically processed if messages are included from pilots. To ensure clearances are not delayed, make requests on first RT contact with ATC.

To minimise RT, on first contact with ATC, pilots are reminded to inform ATC all required information on first call. This includes stand number and intersection departure capability. e.g. "Luton ground EZY123 ST3 information alpha QNH 987 Hectopascals intersection alpha able request clearance Edinburgh". For pressures under QNH1000, hPa is a mandatory read back item.

For intersection departure capability pilots should inform ATC on first contact which position they are able to depart from the runway in use. RWY 25 – Intersection with TWY Alpha, or Full Length. RWY 07, Intersection with TWY Hotel, TWY Bravo or full length.

Flight crews are reminded that they should request ready messages, start-up and/or pushback only when ready. This should include doors and hatches closed, steps removed, tug attached and communications established with ground crew with confirmation that they are ready. Pushback or start up clearance can only be issued EOBT +/- 15 minutes. If it is apparent that CTOT cannot be complied with pilots should delay their flight plan as soon as possible to avoid unnecessary congestion on the flow network. It could be your company aircraft that suffer. Engine start-up must not take place until positive clearance to do so has been received from ATC.

Aircraft pushing-back from stands 43, 44, 45, 46, 47 and 48 must not infringe Taxiway Delta without specific clearance.

All stands are nose-in/push-back: ATC will specify the direction of push-back as required by the tactical traffic situation. Flight crew must ensure that ground crew are aware of the required push-back direction.

1.4 Single Engine Taxi Operation (SETO)

Single engine taxi operations (SETO) has a range of operational and environmental benefits if used effectively. At London Luton Airport, we encourage all operators to conduct single engine taxi operations if practicable and subject to various safety and weather conditions.

Single engine taxi can provide benefits such as

- Brake savings
- Reduced noise
- Fuel savings

Single engine taxi is key in reducing noise to our local residents where practicable, ensuring that noise is kept to a minimum. As well as reducing noise levels, single engine taxi also has environmental benefits, such that it reduces the CO² produced by the aircraft.

This procedure is currently operated by a number of operators at LLA as per there Standard Operating Procedures (SOP's), however the basis of this document is to encourage the continued use of such practice but to also encourage other operators to conduct this tactic.

On average 12kg fuel saving in the taxi phase per flight by operating single engine taxiing, however this may be less due to Luton's relatively short taxi times. (Source: 2016 European Aviation Environmental Report)

Aircraft should, wherever possible, use single engine taxi to minimise noise in the local area. Aircrew should ensure they have all the appropriate equipment including aerodrome charts, instructions and appropriate frequencies to maximise airport efficiency. Crews should, however, be ready for departure on reaching the holding point.

1.5 Ground Movement

Within the manoeuvring area, pilots will be cleared to proceed under direction from ATC and are reminded of the extreme importance of maintaining a careful lookout at all times. Pilots should pay particular attention to the clearance limit issued and ensure they are

familiar with, and have a current copy of, the taxiway map to avoid any breach of taxi clearance limits. All breaches will be reported by ATC and an investigation into the cause will be required. Due to the limited taxiway availability, ATC make regular use of intermediate taxiway holding points to deconflict taxiway movements. Pilots must ensure that they do not cross over the taxiway markings if instructed to hold at a taxiway holding point.

1.6 Aerodrome Chart

A direct link to EGGW AIP can be found <u>here</u> or on <u>NATS eAIS website</u>.

2. Departure Procedures

2.1 Departure Routes

All propeller-driven aircraft with MTOM over 5,700kg and all jet aircraft departing LLA, whether routing inside or outside controlled airspace, are required to follow specific departure routes known as Noise Preferential Routes (NPRs) and are designed to avoid flying over built-up areas wherever possible.

For aircraft departing the airport via the Airways System there are four Standard Instrument Departure (SID) routes for each runway – OLNEY, RODNI and DETLING/MATCH. In 2015, London Luton Airport (LLA) introduced an RNAV procedure (MAT3Y) for aircraft departing the airport along the westerly DETLING/MATCH SIDs.

For aircraft departing outside the Airways system there are 11 Standard Departure Routes (SDR) – JULIET, KILO, MIKE, NOVEMBER, PAPA, ROMEO, SIERRA, TANGO, UNIFORM, VICTOR and WHISKEY.

Although these routes incorporate NPRs, it is important that aircraft not only follow the SID/SDR, but also remain within the lateral swathes of the NPR when departing. More details about the SIDs or SDRs can be found on <u>NATS Aeronautical Information Service</u> (AIS) and <u>Departure Briefing Guide</u>.

2.2 Lateral Swathe of each NPR

The Lateral Swathes (LS) are defined from the centre-line of the relevant NPR by a line either side, each diverging at an angle of 10 degrees from a point on the centre-line of the runway 2km from the start of roll; followed by a pair of parallel lines representing a distance of 1.5km (1km for RNAV) either side of the route centre-line. The NPRs and consequently the Lateral Swathes (LS) include curved sections representing turns. The NPRs are shown on the map below.





2.3 Route Adherence

The obligations of Noise Preferential Routings for conventional SIDs cease when a height of 3,000ft QNH (between 07:00hrs to 23:00hrs local time) and 4,000ft QNH (during night time, 23:00hrs to 07:00hrs local time) has been reached. The obligations of the RNAV1 NPR ceases when a height of 4,000ft QNH has been reached at all times. The restricted altitude for the SDR's may vary depending on the route.

Once aircraft have reached the NPR restricted altitude they may be directed by Air Traffic Controllers onto a different heading in order to integrate with the overall flow of traffic. This is standard air traffic management procedure followed by all airports in this country and other member states of ICAO.

The maps overleaf represent indicative NPRs for westerly and easterly operations at LLA. (Please bear in mind that there are no precise finish lines to the NPR, and all aircraft reach the NPR height restriction at different locations, depending on the aircraft capabilities, MTOM and other factors). It is strongly advised that the aircraft continue to operate within normal speed profiles.

2.4 RNAV Procedure

Luton currently operates two RNAV procedures, MAT3Y and DET3Y. It should be noted by flight crews that upon receiving their departure clearance, if they have selected to fly a MATCH route, then they will automatically be assigned the RNAV route.

It is the responsibility of the aircraft commander or flight crew to notify the ATC unit if this is not possible at which point, you will be assigned a MAT3B or DET3B route which utilises a conventional procedure.

2.5 Noise and Track Violation Scheme

Using the Aircraft Noise and Track Monitoring System the Airport's specialist flight operations team will evaluate the radar tracks and assess them against the Lateral Swathes of the Noise Preferential Routes. A departure will be deemed to have complied with the Noise Preferential Routing if the portion of flight below the appropriate vectoring altitude is flown wholly within the Lateral Swathe. Where the aircraft is clearly flying outside the Lateral Swathe, the aircraft is identified as causing a "possible" track violation and is subject to a penalty, as defined in LLA's Charges and Conditions of Use.

Any operator identified as deviating outside the NPR below the restricted altitude will receive an email together with a track trace outlining the actual flown track in relation to the NPR corridor.

Track Violations Sanctions and Appeal Process

Airlines and Aircraft Operators can appeal the penalty notification by way of submitting valid justification for the deviation. This must be received within 14 calendar days of the date of notification from London Luton Airport. If suitable evidence explaining the track deviation is provided then the penalty notice will be cancelled, otherwise an invoice will be issued.

	Penalty per Event	
Occurrence Rate	Daytime 0700 – 2259 Local	Night-Time 2300 – 0659 Local
	Time	Time
Any Event	£1,000	£2,000

Details of the Track Violations Sanctions are shown in the Table below:

For General and Business Aviation Aircraft Operators, it is the responsibility of the ground handling provider to ensure that the notification is passed with sufficient time to provide mitigation within the appeal period. In the event that the deadline for appeals is missed due to late notification from the ground handler it is ground handler's responsibility to pay the penalty as defined within LLA Charges and Conditions of Use.

All penalties collected under the Track Violation Penalty System are transferred to the London Luton Airport Community Trust Fund which funds a number of community projects in and around the area. London Luton Airport does not profit from this penalty system in any way.

Exemption from the Track Violation Scheme

As always, safety prevails and there may be cases which involve vectoring an aircraft sooner than at the NPR height restriction. If ATC identifies any valid justification that could explain the deviation from the track, then the operator causing it will be exempt from the penalty. Valid justifications include:

- Safety or operational reasons, i.e. ATC vectoring
- Weather avoidance due to CB or TCU activity (as instructed by ATC)
- Aircraft technical issues providing the engineers report is submitted
- Emergencies, providing "PAN PAN" or "MAYDAY" has been reported to ATC

If there is any concern from flight crews then we advise that you contact the airport prior to departure.

2.6 Continuous Climb Operation (CCO)

Wherever practicable and subject to certain operational & ATC restrictions, all operators are encouraged to use Continuous Climb Operations (CCO). The benefit of this can be felt by both the operators and the residents in the local communities.

At LLA, we are currently looking at new opportunities to further improve CCO whilst maintaining safety and efficiency. We note that, typically at night, operators can experience improved CCO due to a lower volume of air traffic operating in this period. However, for the mid to long term, achieving higher CCO requires airspace changes to take place.

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3. Summary

- Keep APU usage to the absolute minimum at all times.
- Please ensure your FMS database is up to date. If you are unsure, please query with ATC or the Aircraft Operator.
- Thoroughly brief for the departure ensure the noise abatement routes are adhered to. Know your stepped climb profile; level busts are a particular issue with Luton. Consider the likelihood of a level restriction, particularly on eastbound departure due to conflicting outbound routes from other TMA aerodromes.
- Remote holding on departure (CTOT for example) may available. Planning around a delay holding on stand can be accommodated and is encouraged. It will increase fuel savings and reduce environmental impacts.
- In order to further reduce the impact of noise and emissions on the environment, single engine taxi should be adopted as best practice as long as safety requirements are met.
- Where SOP's allow, plan for an intersection departure and inform ATC upon initial contact. This aids in the arrivals sequence and can minimise delays at the hold.
- Backtrack or line up manoeuvres should be conducted in minimum time to minimise delays.
- Aircraft lined up to depart should execute their take off roll immediately upon receipt of ATC clearance.
- We strongly encourage flight crews to monitor the lateral track closely and stay within the NPR at all times.

We advise crew to contact the airport prior to arrival if there is any concern from them. The Flight Operations Team can be contacted by emailing <u>FlightOps@ltn.aero</u>.

Glossary

AIP	Aeronautical Information Publication	
AMN	Airport Management Notice	
APU	Auxiliary Power Unit	
ATC	Air Traffic Control	
CAA	Civil Aviation Authority	
CDO	Continuous Descent Operation	
CCO	Continuous Climb Operations	
GPU	Ground Power Unit	
ICAO	International Civil Aviation Organisation	
ILS	Instrument Landing System	
LLACC	London Luton Airport Consultative Committee	
LLA	London Luton Airport	
nm	Nautical miles	
NPR	Noise Preferential Route	
OpsCom	A web-based System Management System with focus	
	on Hazard and Safety, Risk Management, Occurrence	
	Reporting and Risk Analysis.	
OSI	Operational Safety Instruction	
SETO	Single Engine Taxi Operation	
SOPs	Standard Operating Practices	
QC	Quota Count	