



BROXBURN, UPHALL AND WINCHBURGH LOCAL AREA COMMITTEE

EDINBURGH AIRPORT 'AIRSPACE CHANGE PROGRAMME' CONSULTATION

REPORT BY HEAD OF PLANNING, ECONOMIC DEVELOPMENT & REGENERATION

A. PURPOSE OF REPORT

The purpose of this report is to advise the Local Area Committee (LAC) that the second consultation on airspace change has now been issued by Edinburgh Airport Ltd. and that work has commenced on preparing a response to be submitted by 30 April 2017. LAC members are invited to contribute to the response which will, time permitting, follow the normal governance route of Environment PDSP and Council Executive.

B. RECOMMENDATION

It is recommended that the Local Area Committee notes:

1. the launch of this second phase of consultation on Airspace Change Programme; and
2. the intention to submit a proposed response to the consultation to the Environment PDSP and Council Executive for approval.

C. SUMMARY OF IMPLICATIONS

I Council Values	Focusing on our customers' needs; being honest, open and accountable; working in partnership.
II Policy and Legal (including Strategic Environmental Assessment, Equality Issues, Health or Risk Assessment)	<p>West Lothian Council has no statutory powers to regulate air traffic routes or noise. Air Traffic Routes are regulated by the Civil Aviation Authority (CAA). Noise from aircraft in Edinburgh Airport is regulated by Edinburgh Airports Ltd.</p> <p>Should the decision to change the flight paths progress, West Lothian Council will be a statutory consultee in that process. There are no Strategic Environmental Assessment, Equality, Health or Risk Assessment issues associated with this report at present, however should the proposals proceed, then these may be required from the airport.</p>

III	Implications for Scheme of Delegations to Officers	None.
IV	Impact on performance and performance Indicators	None.
V	Relevance to Single Outcome Agreement	<p>Our children have the best start in life and are ready to succeed.</p> <p>We are better educated and have access to increased and better quality learning and employment opportunities.</p> <p>Our economy is diverse and dynamic, and West Lothian is an attractive place for doing business.</p> <p>We live longer, healthier lives and have reduced health inequalities.</p> <p>We make the most efficient and effective use of resources by minimising our impact on the built and natural environment.</p>
VI	Resources - (Financial, Staffing and Property)	None.
VII	Consideration at LAC and PDSP	The consultation has only recently been launched therefore this is the first consideration by the BUW LAC.
VIII	Other consultations	<p>Development Planning</p> <p>Economic Development</p> <p>Roads and Transportation</p>

D. TERMS OF REPORT

D1 Background

The 2011 [Edinburgh Airport Masterplan](#) laid down the development trajectory for the airport and highlighted the potential future increase in airspace capacity to cope with traffic growth by introduction of new technology

In summer 2015 Edinburgh Airport carried out a trial of an additional new instrument based western departure flight path, known as TUTUR. This took air traffic over Uphall and the Bathgate hills, neither of which had been significantly exposed to air traffic previously. The trial was intended to gather data for a possible further permanent westbound departure flight path from the airport. The airport operator has identified that additional flight paths are required to increase available runway capacity at the airport.

Edinburgh Airport subsequently stated that it viewed the trial to have been successful, but acknowledged there to be noise issues. Subsequently, it alluded to taking a more comprehensive look at all flightpaths.

Simultaneously, there is a move towards Performance Based Navigation (PBN) across European airspace. This uses satellite based navigation rather than ground based beacons and is more precise and permits some ability to route aircraft around sensitive areas. This change is driven by European air traffic standards and improvements in technology. The existing approach and departure routes were developed in the 1970s before this technology was available.

D2 'Let's Go Further' Consultation Process

In June, Edinburgh Airport launched '[Let's Go Further](#)', its airspace change programme. The stated aim was to examine the potential impact of altering flightpaths *'to allow for maximum operational benefits and to minimise community impact'*.

Following these initial activities, the airport embarked on a two phase public engagement and consultation process:

- Phase 1 aimed to gather views from communities involved. The results of this initial consultation would be used to help guide the design and development of potential future flight path options. General indications were provided in illustrative 'envelopes' shown in pages 49-69 of the consultation. These laid out broad areas for 3 departure and 3 arrival routes over West Lothian. The Council's response was submitted following approval by the Council Executive on 30 August 2016.
- Following feedback on local sensitivities gathered during phase 1, phase 2 puts forward specific flightpath proposals for public consultation and explains the rationale for their selection. It asks for feedback on whether the right options have been selected and where multiple options exists, how and when flight paths should be used. This second phase of consultation was launched on 30 January, with responses due by 30 April. The results will provide the basis to allow the airport to make the subsequent [CAP725 statutory change process](#) application to the Civil Aviation Authority (CAA) with a view to implementing new flightpaths in 2018.

D3 WLC Response to phase 1 consultation

The council considered the implications of the change and submitted a response to Edinburgh Airport Ltd. A copy of the response submitted is attached as [Appendix 2](#). It is proposed that the response to this second phase will use the phase 1 consultation response as a point of reference although it is noted that the second phase proposals have a change in emphasis therefore additional points will also be considered. LAC members are invited to contribute additional points for consideration.

D4 Initial considerations of phase 2 consultation

The consultation has only recently been issued therefore has not yet received full consideration. The following points have been promoted by Edinburgh Airport within this second consultation and initial thoughts are inserted.

D5 Programme Mandate

The programme mandate stated within the consultation is: “We, Edinburgh Airport need to understand the views of stakeholders concerning the presentation of an airspace change proposal to the CAA that complies with the relevant regulatory requirements so that Edinburgh Airport can operate flight paths that maximise operational benefits and minimise community impact by 2018 so as to improve Edinburgh Airport’s national transportation infrastructure to enable the economic, social and cultural growth of Scotland”.

Mandate 2: Second consultation

“We, Edinburgh Airport need to understand the views of stakeholders concerning viable options for arrival and departure flight paths so we can alter flight paths to maximise operational benefits and minimise community impact by summer 2018 so as to produce an airspace change proposal to the CAA which complies with the relevant regulatory requirements and responds to consultee concerns”

D6 Initial considerations

Within the body of the consultation it states that the intention is to improve efficiency and capacity, yet the consultation restrictions indicate that it is not about the principle of air traffic growth. This contradiction was raised in the response to phase 1 consultation and will be raised again.

The consultation plays down the desire for expansion or increasing flights, and makes no reference to on-ground efficiency proposals proposed within the WLC initial response. However, 1 minute departure intervals were a design criterion for the new routes. To achieve this, divergence of departure routes is needed much closer to the airport.

The consultation places great emphasis that the proposed changes will reduce those overflown by 25,000. The flight path proposals indicate that this can be achieved by flying over less-densely populated areas. It fails to recognise that noise impact is the differential between background noise levels and noise levels in the presence of aircraft. Densely populated areas will have a higher background therefore the impact of aircraft noise will be less noticeable.

The initial northbound flightpath also appears to go very close to the development area of Winchburgh, and southbound over Calderwood which are both areas of planned growth however the population assumptions do not appear to acknowledge this.

Page 42 indicates that impact on rural areas should be considered, however goes on to indicate that their consultant suggested that density mapping should be the tool used. Density mapping to reduce those impacted by over flight noise will, by its’ very nature, direct traffic to rural areas which appears contrary to the CAA guidance.

As with the previous consultation, this consultation seeks to limit responses to airspace change rather than on-ground improvements. It is therefore attempting to limit the contribution by stakeholders.

The consultation claims that there will be a reduction in CO₂ emissions from fuel use in the region of 8500 tonnes. The consultation fails to acknowledge that if the desired growth occurs, additional flights will increase CO₂ emissions.

The consultation makes claims of improved navigational efficiencies through using RNAV. Whilst this can be applied to existing flightpaths, Edinburgh Airport wishes to use its introduction to increase capacity. Although RNAV will improve navigational efficiencies, the consultation goes on to explain that wind direction dictates the approach and departure direction. The use of RNAV will also mean that the areas impacted will have cumulatively greater impact as the 'bands' of flights will be more tightly concentrated.

There is no reference to changes in night flights which was a major concern in the WLC initial response, however the airport claim to be 24hr.

The proposed flight scenarios have not yet been fully assessed however initial observations are provided in [Appendix 1](#).

D7 Economic Development

Whilst concerns exist over noise and other environmental impacts, it must also be recognised that the proximity of Edinburgh Airport provides an economic benefit to West Lothian. The economic benefits associated with Edinburgh Airport include the direct and indirect impacts associated with airport operations. Associated on-site operations, off-site operations, passenger expenditure and freight traffic arriving and departing from the Airport all have a positive financial impact. The location may make West Lothian an attractive place from which to conduct business, whilst 20% of directly employed airport staff live in West Lothian. In addition, a proportion of the 23,000 wider jobs supported may be held by West Lothian residents. The airport brings tourists spending in to Scotland but conversely also takes tourist spending out.

E. CONCLUSION

The second phase of the airspace change consultation has now been released with a response deadline of 30 April 2017. The consultation proposes flight path options and asks responders to comment upon these options. Although seen as giving responders the opportunity to influence the final decision, it does create uncertainty about the eventual impact upon West Lothian.

The consultation response can therefore not be specific however will contain similar themes to the earlier response of minimising impact and promoting that on ground solutions are investigated to improve the desired efficiency prior to changes in airspace. The proposed response will follow the normal PDSP / Council Executive approval process.

F. BACKGROUND REFERENCES

Edinburgh Airport Lets go Further consultation. Report to Council Executive on 30 August 2016.

[Edinburgh Airport Masterplan 2016 Consultation](#)

Edinburgh Airport Lets go Further consultation. Report to Broxburn Uphall and Winchburgh LAC, 8 September 2016

[Edinburgh Airport Masterplan, 2011](#)

Aircraft Noise from Edinburgh Airport Flightpath, Report to Broxburn Uphall and Winchburgh LAC, 15 September 2015

Aircraft Noise from Edinburgh Airport Flightpath Trial, Report to Environment PDSP,

29 October 2015

Aircraft Noise from Edinburgh Airport Flightpath, Report to Broxburn Uphall and
Winchburgh LAC, 26 November 2015

['Lets Go Further' Initial Consultation June – September 2016](#)

Appendices/Attachments:

Appendix 1 – Response to initial 'Let's go further' consultation

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16 February 2017.

Appendix 1

Summary and Key Proposals

1. A design requirement is to facilitate 1 minute interval departures. (The initial consultation highlighted this for peak times, but phase two doesn't restrict this to peak periods).
2. Routes are to be designed and implemented for Performance Based Navigation using Area Navigation (RNAV). This will result in greater accuracy of track keeping, but will consequently mean a higher proportion of flights being exactly on the flight line.
3. Ten separate flightpaths are proposed:
 - 1 arrivals from the west (wind dependent, in use for approximately 20% of arrival flights)
 - 1 arrivals from the east (wind dependent, in use for approximately 80% of arrival flights)
 - 4 departures to the west (wind dependent, in use for approximately 80% of departing flights)
 - 4 departures to the east (wind dependent, in use for approximately 20% of departing flights)

For each, multiple options were considered and information is provided as to why the favoured option was selected.

The proposed flightpaths relate to arrivals and departures from four major routes or 'hold' patterns:

- GOSAM (west, jets only)
- GRICE (north west, all traffic)
- TALLA (south east, all traffic)
- TWEED (south, all traffic)

There are no proposed changes to the flightpaths for the minor runway, which is seldom used. The Edinburgh Airport Masterplan proposes its abolition.

4. The methodology used to assess routes is explained and shown in tables. Significant weight in the decision making process is placed on overflowed population. However, it should be noted that in relation to population overflowed:
 - the current overflight of Livingston by 91% of westbound take-offs means that any reduction in Livingston overflight is viewed as beneficial. This can, however, be at the cost of overflight at lower altitude of communities closer to Edinburgh Airport. The greater noise associated with lower altitude overflight of a community is not considered; and
 - the stated size of Winchburgh (2000) greatly underestimates its planned population. The population of East Calder has not been considered. Both of these factors have influenced selected route choice.

Notable Outcomes following Stage 1 Consultation

1. The locations of care and education facilities were taken into account and mapped. A map of WLC education facilities was provided to accompany the council's response to the phase 1 consultation.
2. Known areas of proposed development were said to be taken into account. These were highlighted in the council's response to the phase 1 consultation. However, the

proposals give rise to overflight of some new development areas including north Broxburn, East Calder, and Winchburgh.

Omissions and Inaccuracies

3. In comparing proximity and overflight in the assessment tables, it is unclear what the baseline is and therefore whether a proposed route is indeed an improvement.

Uncertainties

4. Utilisation. Although indicative % use figures for each route are provided, Edinburgh Airport is expecting and intending to grow. Therefore indicative route usage figures cannot be taken to represent patterns at inception or in the future.

Detailed Proposals and Effects on West Lothian Communities

Interactive maps of proposed flightpaths routes are available online at <http://www.letsqofurther.com/flight-paths>.

5. General. Given the tight routings around communities, and the permissible degree of flightpath divergence, some aircraft will overfly communities which the routes are designed to avoid.

Communities will perceive some degree of flightpath non-adherence due to direct vectoring of flights from the proposed flightpaths to the long distance flightpaths once above 4000ft. For a rapidly climbing aircraft, this may occur over communities as close as Broxburn.

6. Route A(6). Non-jet route replacing the existing TALLA standard instrument departure pattern of turning south much further west. This will bring air traffic directly over East Calder, which does not currently experience routine overflight. It appears to be primarily intended to separate south / east bound west departing traffic as soon as possible following takeoff. It does not appear to recognise the existence of East Calder and its planned growth. In particular, it will directly overfly Calderwood, the CDA and proposed secondary school. Vectoring from the route would permit overflight of south Livingston above 4000ft.

Possible Route A7 was ruled out as being too tight a turn, but the tighter D0 and C5 are not. It is not clear what the rationale is for this.

7. Route B (all traffic). Two options are proposed, B2 and B5, which are suggested to be complementary rather than an and / or option. B5 is the existing main departure route over Pumpherston and Livingston. A new westbound take off path (B2) intended to be an alternate to B5 is proposed. Whilst this reduces flights over Livingston in the immediate future, it is at the cost of directly overflying Uphall Golf club, similar to the trial TUTUR route at that point. It will also fly close, but not over the proposed homes at the former Bangour Hospital site before heading north west over the Bathgate hills towards Falkirk. A clear contrast exists between urban or rural overflight.

It is not clear why route B3 and B4 are viewed to be ICAO non-compliant.

8. Route C. Preferred route C5 was selected as it diverges from the main flight path early and overflies the industrial estates of east Broxburn. However, it fails to recognise the major planned home development in north Broxburn and Winchburgh. The sharp right turn may not be suitable for all aircraft and the mapping indicates some potential spread westwards over Broxburn. Where a rapid climb has occurred, vectoring may bring aircraft across any part of Uphall. Although proposed to be used for 7% of departing flights, these will include jets. It is expected to bring the centre of Broxburn within the 70dB and Winchburgh within the 75dB maximum noise level for flights departing on this route. It cannot be agreed that this option results in a similar noise exposure to existing.

It is recommended that this route not be permitted for night time flights. If this option is essential, C3a would appear to be better for noise impact on local communities.

9. Route D

The selected Route D0 is initially identical to selected route C5 resulting in concentrated traffic over north Broxburn and both flightpaths directly affecting new and existing development in Winchburgh. The combined effect of C5 and D0 is not quantified or discussed. It is recommended that this route not be permitted for night time flights.

10. Route E

Routes E1a and E1b (currently routinely used) as described as 'non-compliant' due to 'stabilisation distances' understood to relate to wake turbulence.

Some degree of overflight of communities in north West Lothian is to be expected when vectoring from E6 to long distance flightpaths takes place above 4000ft. However, this will be limited to the 20% of take offs to the east.

The expected degree of use each flightpath would handle (based on current traffic levels) is outlined in Table 12, P138 of the consultation.

Appendix 2

Edinburgh Airport: 'Let's Go Further' Airspace Change Consultation

West Lothian Council Response to Phase 1 Consultation

What local factors should be taken into account when determining the position of the route within the design envelope given the potential impacts, and why?

West Lothian Council advocates that the following matters should be taken into account when determining the position of route(s) within the design envelopes:

1. The wishes of the community must be taken in to consideration.

The reason this should be taken in to consideration is because this current phase one consultation appears to make the assumption that airspace use change is the only solution to growth without first demonstrating that all other on ground and airspace management options have been exhausted. As such it is particularly restrictive and has failed to recognise or acknowledge the levels of concern raised during the TUTUR trial by the West Lothian Community.

2. Established routes and the impact of changes on those not currently subjected to aircraft noise.

The reason this should be taken in to consideration is that the airport has failed to demonstrate that they have exhausted all on ground solutions to increasing flight numbers and capacity. Before considering any changes to flight paths over areas not previously overflown, Edinburgh Airport should exhaust all on-ground options to increase capacity, such as improved runway access and egress, aircraft holding areas and management of the airspace and permitted aircraft types. The Edinburgh Airport Masterplan (2011) identifies that, '*further enhancements to both runways and associated taxiways, could increase the capacity of the runway system as a whole to approximately 55 movements per hour*'. Rapid access and egress taxiways are specifically highlighted.

The TUTUR flightpath trial demonstrated that the routing of aircraft over areas which are not currently affected results in significant levels of complaint and concern to the public. Some of those residents may have chosen to live in an area because it is not affected by overflight. This effect is magnified in rural areas where background noise levels are lower, making overflight noise proportionately more intrusive. Community resistance should be anticipated where new routine overflight is proposed.

3. Cost of on-ground solutions versus negative impact on WL community.

The reason this should be taken in to consideration is the airport has failed to demonstrate that they have considered the cost of alternative solutions versus the negative impact on the community experienced during the TUTUR trial. This consultation appears to imply that change of airspace is the only solution without first demonstrating publically that all other options have been considered and costed.

For example, the runway at Edinburgh, unlike most major airports, only has two exit points, both of which are at 90 degrees to the runway. Other major airports have exits at 45

degrees to the runway orientation which increases runway capacity by allowing landing aircraft to clear the runway more quickly.

Before considering any changes to flight paths over areas not previously overflown, Edinburgh Airport should exhaust all on ground options to improve capacity. Improving on-ground traffic flow to occupy or vacate the existing runway more efficiently could include options such as additional exit and egress points or tapered exit and egress points to replace the restrictive two 90° access/egress points at extremities of the existing runway as at present.

4. Overflight Noise impact on general community

The reason this should be taken in to consideration is that the aircraft noise has a detrimental impact upon sleep; a fact confirmed by complaints during the TUTUR trial. The impact on health of excessive or persistent noise or disturbed sleep is well documented. Any proposed changes, if at all required, should not be detrimental to the community. The post TUTUR report, following the trial ending in Oct 2015, identified that noise issues existed however the information relating to these has not been included within this consultation. Flight approach, height, speed and turning requirements affect noise generation. Rate of climb on take-off and landing directly affect noise impact. Initial steep climbs result in higher noise levels near the airport but less over West Lothian, whilst more gradual ones extend noise effects over a longer distance. The use of airspaces should be managed to minimise the impact on West Lothian residents.

Aircraft at 3-4000ft. appear to be most intrusive, as they produce significant peak levels and give rise to more prolonged events due to altitude. Close community overflight in this altitude range should be avoided entirely for this reason.

5. Overflight Noise impact on specific communities/establishments.

The reason this should be taken in to consideration is that excessive aircraft noise can have a negative impact on education due to the disturbing nature of the noise. Flights should avoid overflying educational establishments during the day, particularly whilst at lower altitudes. A map of West Lothian schools is attached for information.

Those already impacted by noise may have a degree of desensitisation and therefore may not notice a change in frequency of flights, however those currently residing in more tranquil locations would experience a greater negative impact of the introduction of over flight in their community. For these reasons over-flight of areas of current tranquillity should be avoided.

Flights should, where possible, avoid overflying hospitals where noise intrusion may impact rest and recuperation of patients.

6. Location of existing settlements/population density

The reason this should be taken in to consideration is that government guidance provides generic objectives for airspace changes, such as the need to overfly the fewest people below 7,000ft above ground level. The current routes directly overfly Pumpherstons and Livingston, with a significant combined population. Options for overflight of open space, such as the river Forth, should be considered.

7. Planned location of future settlements

The reason this should be taken in to consideration is that over the next eight years, 19,800 houses are proposed for West Lothian; some of which have already been built. The growth is largely focussed on the Core Development Areas. Planning proposals include significant housing development in Broxburn, Drumshoreland, Bangour and East Calder, and these should be taken into consideration when assessing the population potentially affected. Full details can be found in the [West Lothian Local Development Plan, proposed Plan](#), (LDP) on which Edinburgh Airport was consulted.

The Plan also advises that a number of housing sites will continue to deliver beyond the plan period. Taking these into consideration this provides for a total of 26,073 homes, principally through ongoing development within the core development areas and strategic allocations.

It is essential that residents can sleep and enjoy outdoor activity without unreasonable interference.

8. Times of flights and frequency

The reason this should be taken in to consideration is that aircraft noise disturbs sleep and sleep disturbance can affect sleep patterns and mental health. In our younger population, sleep disturbance may adversely affect educational performance. Direct overflight of communities during evenings, overnight and early morning should be entirely avoided.

30 August 2016