



Inverness Airport ACP

Post Consultation Review

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Executive Summary

The consultation phase is a key part of the airspace change process. It allows the change sponsor to gather information and to understand views about the impact of a proposal. It allows consultees to provide relevant and timely feedback to the change sponsor. There will be variable, and often opposing, views between different stakeholder groups. The formal consultation phases for the Inverness Airspace Change took place in 2014/2015 and again in late 2016. The Inverness Airport Airspace Change webpages have remained active on the Airport's website to enable stakeholders to keep apprised of the project.

Consultation

To support the 2019 submission of the ACP, the Airport sought 'Building Consent / Construction' data from the Local Planning Authorities (LPA) for the years following the last (Addendum) Inverness Airport airspace consultation; data was provided covering single and multiple plot domestic housing developments (over 180 dwellings) consented or constructed since December 2016.

Non-Aviation Stakeholders

The Inverness Airport airspace change consultations conducted by HIAL, spanning 41-weeks over a two-year period is deemed to remain valid. This decision is based on two main points:

- 1) Literature generated by all the developers of these sites reference the proximity of Inverness Airport and therefore, all buyers will be aware of the Airport's operation. No additional comment not already received during the initial consultations would be expected. The Inverness Airport Airspace Change webpages have remained active on the Airport's website and no additional comment has been received.
- 2) The Inverness Airport airspace change is not predicted to alter routes to affect the documented new developments.

Aviation Stakeholders

Inverness ATC has an 'on-going' engagement with aviation stakeholders since the end of the last (addendum) consultation in 2016. The proposal has been adjusted to take account of feedback, particularly from the GA(S&R) community, in order to facilitate ease of access to the proposed CAS and maintain safety levels. The adjustment to aviation stakeholder feedback is deemed to remain valid. This decision is based on the main points of CAS type and Flexible Use of Airspace (FUA), through the use of suitable Letters of Agreement (LoA).

Environmental Assessment

Noise

There is only one significant new development near the Airport, Tornagrain (paragraph 1.1.1), since the last consultation but, this lies well outside the 55dB contour. Therefore, there is no predicted change to the number of dwellings exposed to a noise level previously considered by the Department for Transport (DfT) as nuisance noise (i.e. above 55dB) and there is no predicted change to the number of dwellings exposed to more than 51dB due to the ACP.

CO₂

Current Inverness Air Traffic Control radar vectoring tracks for Instrument Flight Rules (IFR) commercial traffic taking a UK Flight Information Service (UK FIS) under a Deconfliction Service (DS) or Traffic Service (TS) replicate these routes unless deviated due to unknown, non-participating air traffic. Deviations from the preferred tracks for Inverness Airport IFR commercial traffic remains a daily occurrence with the extant airspace arrangements. However, the ACP aims to create a known environment such that deviation from these routes becomes a rare event. Therefore, the fuel burn and emissions are expected to reduce slightly for each individual route.

Summary

The consultations conducted over two years and spanning 41 weeks, undertaken by Highlands and Islands Airports Ltd (HIAL) as part of the Inverness Airport Airspace Change, remain valid as there will be no change to extant baseline impacts for new residents in the vicinity of Inverness Airport and the City.

The environmental assessments completed by the Environmental Research and Consultancy Department of the Civil Aviation Authority (CAA ERCD) as part of the Inverness Airport Airspace Consultation remain valid as the environmental baseline is not altered by the ACP. No new developments are affected by the proposal or are previously unaware of the Airport's presence.

The 'Building Consent / Construction' data sought by the Airport from the LPAs to support Section 1 of this Assessment found no new developments to affect RNAV (GNSS) Instrument Approach Procedures (IAP) or the SID / STAR (Transitions).

Table of Contents

1	Consultation	6
1.1	Introduction	6
1.2	Non-Aviation Stakeholders (Communities)	6
1.3	Aviation Stakeholders	11
1.4	Summary.....	12
2	Environmental Assessment	13
2.1	General.....	13
2.2	Summary.....	16

Table of Figures

Figure 1: Housing development within the area of the Inverness Airport Airspace Change since Dec 2016.....	6
Figure 2: Actual Inverness Airport L_{den} Contours as assessed in 2015 (by Turnberry Consulting)	14
Figure 3: Inverness Airport Summer L_{Aeq} Contours for 2014 (blue) and 2015 (red) @ 69, 63, 57 and 54dB	14
Figure 4: Inverness Airport L_{den} Contours 2030.....	15

1 Consultation

1.1 Introduction

The aim of this section is to demonstrate that the consultation carried out for the Inverness Airport Airspace Change Proposal (ACP) remains valid following further development in the local vicinity.

The consultation phase is a key part of the airspace change process. It allows the change sponsor to gather information and to understand views about the impact of a proposal. It allows consultees to provide relevant and timely feedback to the change sponsor. There will be variable, and often opposing, views between different stakeholder groups. The formal consultation phases for the Inverness Airspace Change took place in 2014/2015 and again in late 2016. The Inverness Airport Airspace Change webpages have remained active on the Airport's website to enable stakeholders to keep apprised of the project.

To support the 2019 submission of the ACP, the Airport sought 'Building Consent / Construction' data from the Local Planning Authorities (LPA) for the years following the last (Addendum) Inverness Airport airspace consultation; data was provided covering single and multiple plot domestic housing developments (over 180 dwellings) consented or constructed since December 2016.

1.2 Non-Aviation Stakeholders (Communities)

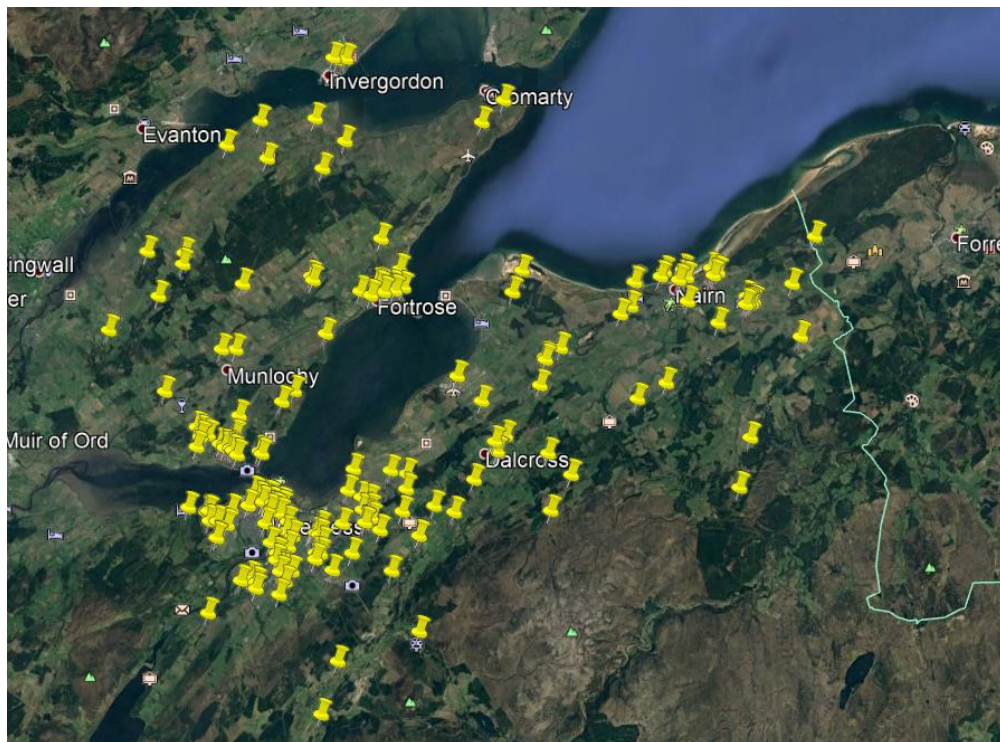


Figure 1: Housing development within the area of the Inverness Airport Airspace Change since Dec 2016

It is important for the Civil Aviation Authority (CAA) to understand where significant changes in the developed (built) environment surrounding Inverness Airport and in the vicinity of the procedures have, if at all, taken place indicating a significant change in the non-aviation stakeholder cohort. The data obtained from the LPAs is shown in Figure 1 (above); each yellow 'pin' denotes a single, multiple (where single house developments are adjacent to each other) or compound (estate) development.

Most development ('pins') outside the Inverness and Nairn conurbations represent a single house development or an improvement to an extant building; there are a few new communities, and only one of the developments includes a sensitive site such as a school or hospital. Most of the single dwellings or home improvement developments lie very close to, or underneath, the current Inverness Airport extended centreline and associated current approach and departure flightpaths. However, they do not represent an increase in the communities potentially affected by the ACP. The area occupied by new housing on the Black Isle (Charlestown, Munlochy and Fortrose) is currently not ordinarily overflown by Inverness Airport arrival and departure traffic at low altitudes and none of the new planned routes will overfly these areas; therefore, the Black Isle developments do not represent an increase in communities exposed to the potential impact of the ACP. Military low-level traffic will generally use R610D to the north. The compound housing developments are notified to the Airport by the LPA, and the consultation impact is described in the following paragraphs.

1.2.1 Tornagrain (IV2 7JG)

Tornagrain is a development of 5,000 homes as well as parks, schools, shops and offices. In the developer's (Stephen (Builders) Ltd) [literature](#) it states:

'The town is located just off the A96 halfway between historic Nairn and busy Inverness and will benefit from the planned dualling of the A96 in the near future. Plans are underway to create a train station at Inverness Airport which will further increase the excellent connectivity of the town.'

'In late 2019 the commencement of the construction of the new railway station at Inverness Airport will provide convenient access to Tornagrain.'

'Tornagrain is conveniently situated a short distance from Inverness Airport which is serviced by a number of airlines www.hial.co.uk. There are regular flights to London Heathrow, London Gatwick, London Luton, Birmingham, Bristol, Manchester amongst others.'

The development is approximately one mile to the southeast of the Airport. The noise contour (see Section 2) for the Airport is not altered due to the Airspace Change and this demonstrates that there is no significant impact predicted for the 'new' residents of Tornagrain who will be aware, due to the developer's publicity, of the benefits of the location in relation to the Airport. Whilst this represents a new community (including a school) that will be subject to extant levels of airport noise, this is **not as a result of the ACP** but, as a result of the new development of housing and schools near the Airport.

1.2.2 Wester Inshes

Inshes is a small residential area in the east of Inverness City; some parts of Inshes were built a few decades ago but, most of it was built after 2003. A few houses are

still being constructed and not yet finished. Most of the houses are semi-detached but, some are detached. Wester Inshes is a housing development near to existing parks, schools, shops and offices to the east of Inverness City centre immediately adjacent, between 0.5 and 0.7 nautical miles (nm) west, to the Inverness Airport extended centreline and associated current approach and departure flightpaths. In the developer's (Tulloch Homes) [literature](#) it states:

'Wester Inshes offers easy access to the A9, the A96 and Inverness' international airport.....'

'Transport

Distance to Inverness City Centre: 3 miles

Air: Inverness Airport (11 miles).'

The new procedures associated with the Inverness Airport Airspace Change will not alter centreline flightpaths from the baseline (extant) flightpaths. Whilst this represents a new community exposed to extant levels of airport noise (below 55dB), this is not as a result of the ACP but, as a direct result of the construction of dwellings, in the City, under the extant flightpaths associated with the Airport.

Inverness is the main City in the Highlands with good road, rail and air transport connections; indeed, the air links at Inverness Airport are promoted as an important stimulus for employment, industry and tourism. Residents moving into the City in recent years, would be aware of the pre-existence of Inverness Airport. Visitors have been habitually overflown by Inverness Airport arriving and departing aircraft for many decades and the increase in number of movements are not related to the ACP. A small minority of responses were received from non-aviation stakeholders in Inverness City during the consultations with no conclusive comments regarding the pre-existing centreline flightpaths. There is no change to extant baseline impacts for these residents in this Inverness City location.

1.2.3 Fairview (IV2 6FD)

Fairview is a housing development near to existing parks, schools, shops and offices to the west of Inverness City centre; between 0.9 and 1.1 nm west of the Inverness Airport extended centreline and associated current approach and departure flightpaths. In the developer's (Tulloch Homes) [literature](#) it states:

'You'll find excellent local facilities and good schools close by and Inverness City centre on your doorstep

'Fairview enjoys easy access to the A9, the A96, and the international airport.'

'Transport

Distance to Inverness City Centre: 3 miles

Air: Inverness Airport (11 miles).'

The new procedures associated with the Inverness Airport Airspace Change will not alter centreline flightpaths from the baseline (extant) flightpaths. Whilst this represents a new community exposed to extant levels of airport noise (below 55dB), this is not as a result of the ACP but, as a direct result of the construction of dwellings, in the City, under the extant flightpaths associated with the Airport.

Residents moving into the City in recent years, would be aware of the pre-existence of Inverness Airport. Visitors have been habitually overflowed by Inverness Airport arriving and departing aircraft for many decades and the increase in number of movements are not related to the ACP. A small minority of responses were received from non-aviation stakeholders in Inverness City during the consultations with no conclusive comments regarding the pre-existing centreline flightpaths. There is no change to extant baseline impacts for these residents in this Inverness City location.

1.2.4 The Parks (IV2 6EY)

The Parks is a housing development adjacent to Wester Inshes (paragraph 1.1.2). between 0.7 and 0.8 nm west of the Inverness Airport extended centreline and associated current approach and departure flightpaths. In the developer's (Tulloch Homes) [literature](#) it states

'Transport

Distance to Inverness City Centre: 3 miles

Air: Inverness Airport (11 miles).'

The new procedures associated with the Inverness Airport Airspace Change will not alter centreline flightpaths from the baseline (extant) flightpaths. Whilst this represents a new community exposed to extant levels of airport noise (below 55dB), this is not as a result of the ACP but, as a direct result of the construction of dwellings, in the City, under the extant flightpaths associated with the Airport.

Residents moving into the City in recent years, would be aware of the pre-existence of Inverness Airport. Visitors have been habitually overflowed by Inverness Airport arriving and departing aircraft for many decades and the increase in number of movements are not related to the ACP. A small minority of responses were received from non-aviation stakeholders in Inverness City during the consultations with no conclusive comments regarding the pre-existing centreline flightpaths. There is no change to extant baseline impacts for these residents in this Inverness City location.

1.2.5 Greenfields (IV2 6EB)

Greenfields is a housing development just to the south of Inverness City centre; (Tulloch Homes) [literature](#). The development is immediately underneath the Inverness Airport current approach and departure flightpaths. The procedures associated with the Inverness Airport Airspace Change will not alter these flightpaths.

Residents moving into the City in recent years, would be aware of the pre-existence of Inverness Airport. Visitors have been habitually overflowed by Inverness Airport arriving and departing aircraft for many decades and the increase in number of movements are not related to the ACP. A small minority of responses were received from non-aviation stakeholders in Inverness City during the consultations with no conclusive comments regarding the pre-existing centreline flightpaths. There is no change to extant baseline impacts for these residents in this Inverness City location.

1.2.6 Broomhill (IV6 7TT)

Broomhill is a development of 40 houses, twelve miles west of Inverness Airport. In the developer's (Tulloch Homes) [literature](#) it states:

'Muir of Ord is a village based in the Black Isle, Easter Ross in the Highlands.

Distance from Inverness: 12 miles

Air: Inverness Airport: 20 miles'

The area is generally overflowed by Inverness Airport's extant arrival and departure traffic from/to the Western Isles and these routes will not be significantly changed. Residents moving into the City in recent years, would be aware of the pre-existence of Inverness Airport. Visitors have been habitually overflowed by Inverness Airport arriving and departing aircraft for many decades and the increase in number of movements are not related to the ACP. A small minority of responses were received from non-aviation stakeholders in Inverness City during the consultations with no conclusive comments regarding the pre-existing centreline flightpaths. There is no change to extant baseline impacts for these residents in this Inverness City location

1.2.7 Braes of Conon (IV7 8FJ)

Braes of Conon is a development of 51 houses, twelve miles north northwest of Inverness Airport. In the developer's (Tulloch Homes) [literature](#) it states:

'Distance from Inverness: 12 miles

Air: Inverness Airport: 20 miles'

The area is generally not overflowed by Inverness Airport arrival and departure traffic and the ACP is not predicted to result in any change in traffic levels over this area.

No non-aviation stakeholder responses were received from this area during the consultations.

1.2.8 Hill Park, Munlochy

Hill Park is a development fourteen miles north northwest of Inverness Airport. In the developer's (Pat Munro Homes) [literature](#) it states:

'Located on the Black Isle just 8 miles from Inverness and only 14 miles from the expanding Inverness airport,'

The area is infrequently overflowed by Inverness Airport arrival and departure traffic at higher levels, greater than 4000ft, where noise on the ground is not significant. The ACP is not predicted to result in any change in traffic levels over this area.

No non-aviation stakeholder responses were received from this area during the consultations.

1.2.9 Deans Park, Dornoch

Deans Park is a development twenty miles north of Inverness Airport, adjacent to Tain Range; (Pat Munro Homes) [literature](#).

The area is generally not overflowed by Inverness Airport arrival and departure traffic; the ACP is not predicted to result in any change in traffic levels over this area.

No non-aviation stakeholder responses were received from this area during the consultations.

1.2.10 Whitehills View, Alness

Whitehills View is a development twelve miles north west of Inverness Airport, adjacent to R610D Range, (Pat Munro Homes) as described in the developers [literature](#).

The area is generally not overflowed by Inverness Airport arrival and departure traffic and this will not change; military fast jet traffic accessing Tain Range via R610D would be unaffected by the airspace change and therefore no change in noise already experienced in that area from military low-flying.

No non-aviation stakeholder responses were received from this area during the consultations.

1.3 Aviation Stakeholders

The CAA has a policy of keeping the volume of Controlled Airspace (CAS) to the minimum necessary to meet the needs of UK airspace users and to comply with its international obligations. CAA will assess whether other airspace users are being impacted other than as anticipated as a result of the change. In order to address this obligation specifically with the regional General Aviation (Sports & Recreation) (GA(S&R)) users and assist the CAA, HIAL established the Inverness General Aviation Focus Group (IGAFG). The group was focussed on GA requirements specifically in terms of volume and type of airspace as well as concurrent changes to be implemented as a result of the Standardised European Rules of the Air (SERA).

Airspace change can impact airspace users in different ways and there was very little response to the ACP from the passenger carrying Commercial Air Traffic (CAT) operators. Other commercial operators' concerns, on-aerodrome or within the Inverness Aerodrome Traffic Zone (ATZ), have been address through Letters of Agreement (LoA) *agreed in principle*.

The IGAFG sat on five occasions through 2015 to 2017, with further engagement, by email, with representatives of then General Aviation Awareness Council (GAAC), Light Aircraft Association (LAA) and the British Gliding Association (BGA). Two further meetings were held with local BGA representatives from Feshiebridge Aerodrome (Cairngorm Gliding Club (CGC)) and Easterton Aerodrome (Highland Gliding Club (HGC)). The main concerns of the local and national GA(S&R)) were the volume of CAS, its accessibility and type (Class D and Class E+) as well as the capability of Inverness Air Traffic Control (ATC) to resource Air Traffic Management (ATM) in and around the proposed CAS. HIAL will need to demonstrate that adequate resources are in place to facilitate the operation of the new airspace design, and that air traffic services are being provided as forecast in the original proposal without unanticipated impact on other airspace users. As a result of the IGAFG and subsequent individual engagement; a reduction in the lateral extent of the Class D airspace, reduction in the number of Class D Control sectors from seven to six, reduction in the vertical limit of the Class D Control Zone (CTR), from surface to FL95 to now surface to 2,000ft, reduction in the common ceiling altitude of the Class D CTAs from FL95 to 5,500 ft amsl and Class E+ Conspicuity Mandatory Zone (TMZ) CTAs have replaced some previous Class D CTAs. Other significant enhancements to Inverness air traffic service provision has also been made including; an increase in the number of Air Traffic Control Officers (ATCO) from 11 to 17, planning for Inverness ATCO and RAF Lossiemouth ATCO Training, installation of a new

Surveillance Data Processor (SDP), improving data presentation, resolution and integrity, the addition of an extra control position (increasing ATM capacity, to accommodate more flights, and an expansion of the surveillance service provision in the evenings from 1730 to 2230.

Inverness ATC has an 'on-going' engagement / liaison with RAF Lossiemouth which remains fully supportive of the Inverness ACP and has provided valuable information regarding changing type and tempo of flying operations at RAF Lossiemouth and Kinloss Barracks, safety and their airspace needs.

1.4 Summary

The consultations conducted over two years and spanning 41 weeks, undertaken by Highlands and Islands Airports Ltd (HIAL) as part of the Inverness Airport Airspace Change, remain valid as there will be no change to extant baseline impacts for new residents in the vicinity of Inverness Airport and the City.

This document details new housing development in the vicinity of Inverness Airport, as notified by the LPAs, since December 2016. Following review of these developments against the extant baseline, the Inverness Airport airspace change consultations conducted by HIAL, spanning 41-weeks over a two-year period is deemed to remain valid. This decision is based on two main points:

- 1) Literature generated by all the developers of these sites reference the proximity of Inverness Airport and therefore, all buyers will be aware of the Airport's operation. No additional comment not already received during the initial consultations would be expected. The Inverness Airport Airspace Change webpages have remained active on the Airport's website and no additional comment has been received.
- 2) The Inverness Airport airspace change is not predicted to alter routes to affect the documented new developments.

Inverness ATC has an 'on-going' engagement with aviation stakeholders since the end of the last (addendum) consultation in 2016. The proposal has been adjusted to take account of feedback, particularly from the GA(S&R) community, in order to facilitate ease of access to the proposed CAS and maintain safety levels. The adjustment to aviation stakeholder feedback is deemed to remain valid. This decision is based on the main points of CAS type and Flexible Use of Airspace (FUA), through the use of suitable LoAs.

2 Environmental Assessment

2.1 General

The aim of the Inverness Airport Airspace Change is to improve the efficiency and effectiveness of the management of all air traffic, including commercial airliners in the airspace surrounding Inverness Airport, and the connections to and from the overlying route infrastructure. The aim of the ACP is not about an (increase) in air traffic movement.

Only one change in air traffic has occurred since the consultation and that is the move of Bristow Search and Rescue (SAR) to Inverness Airport from RAF Lossiemouth in 2017. A noise assessment has been carried out to show the impact of the arrival of this new operator, see Figure 3.

The aim of this section is to demonstrate why the Environmental Assessment completed for the ACP remains valid.

2.1.1 Noise impact changes since consultation

There is no significant change to the ACP noise impact following the introduction of the SAR helicopters. The L_{den} (day-evening-night noise level)¹ contours for the ACP are shown in Figure 2 and the assessment following the introduction of SAR is shown in Figure 3. The change in noise is not influenced by the airspace change but, solely by the relocation of a valuable emergency service to this area of Scotland.

There is only one significant new development near the Airport, Tornagrain (paragraph 1.1.1), since the last consultation but, this lies well outside the 55dB contour. Therefore, there is no predicted change to the number of dwellings exposed to a noise level previously considered by the Department for Transport (DfT) as nuisance noise (i.e. above 55dB) and there is no predicted change to the number of dwellings exposed to more than 51dB due to the ACP.

¹ A-weighted, Leq (equivalent noise level) over a whole day, but with a penalty of +10 dB(A) for night-time noise (22:00-07:00) and +5 dB(A) for evening noise (19:00-23:00)

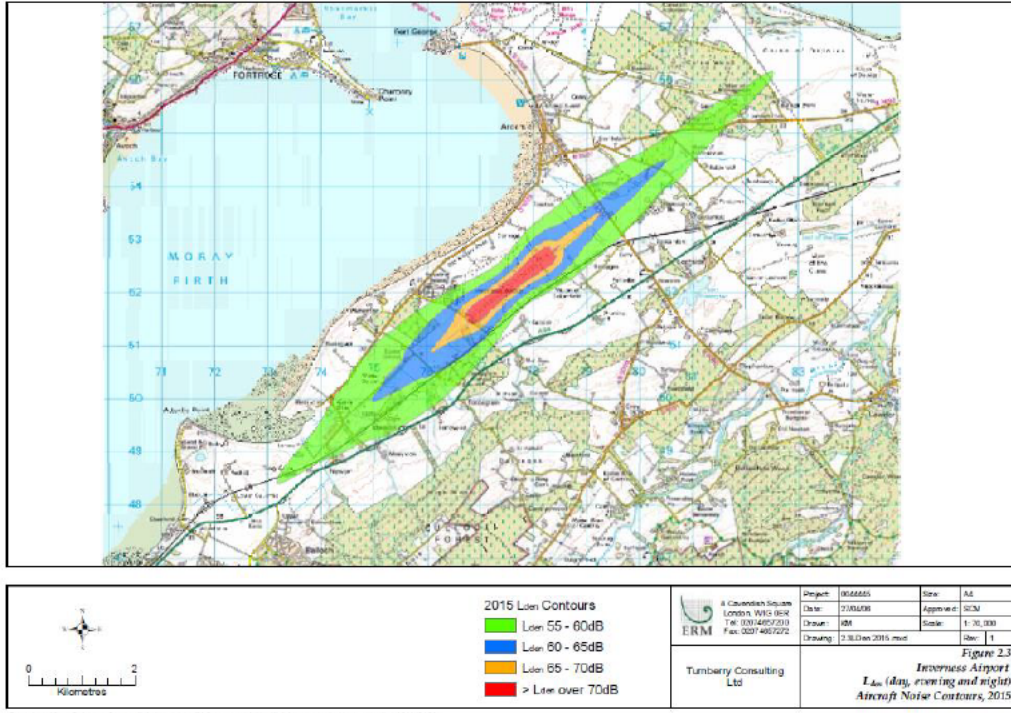


Figure 2: Actual Inverness Airport L_{den} Contours as assessed in 2015 (by Turnberry Consulting)

The Final Approach Track (FAT), i.e. the track over the ground, remains unaltered by the airspace change and the proposed initial departure tracks, which have not altered since consultation, do not significantly change.

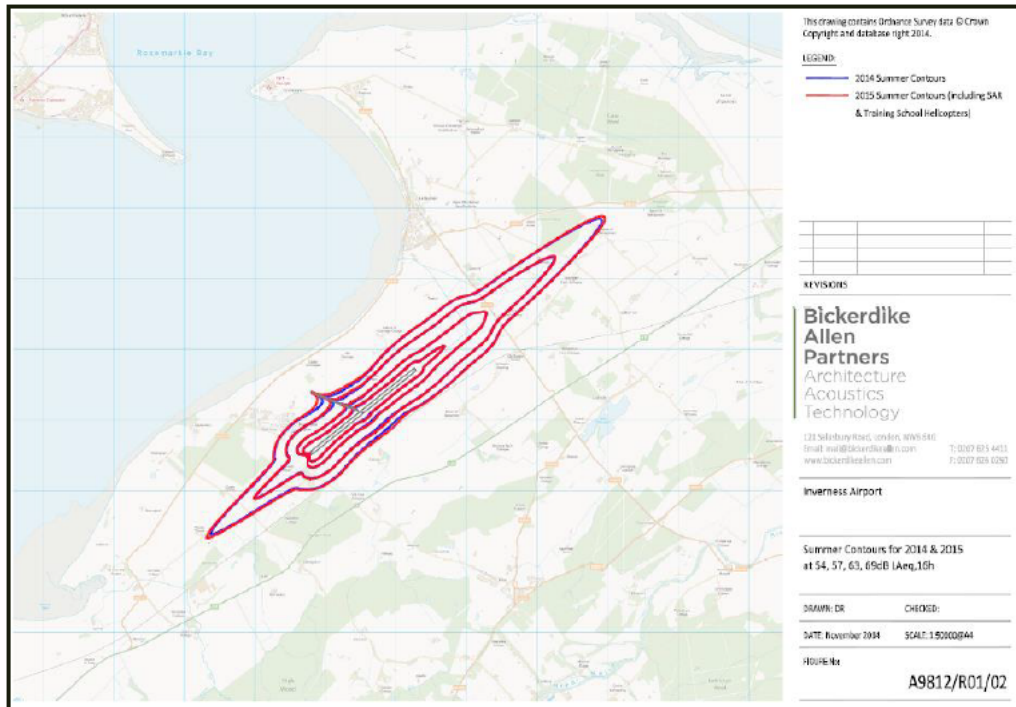


Figure 3: Inverness Airport Summer LAeq Contours for 2014 (blue) and 2015 (red) @ 69, 63, 57 and 54dB

Figure 3 shows the noise contour deviation (day) L_{Aeq} , to the west, caused by the move of Bristow SAR to Inverness Airport from RAF Lossiemouth in 2015.

2.1.2 Forecast growth noise assessment

Figure 4 shows the noise assessment associated with forecasted growth in air traffic to 2030. The change in noise is not influenced by the airspace change but, solely by the current UK air traffic growth predictions; there is no significant change to the extent of the noise contours. The only one significant new development near the Airport, Tornagrain (paragraph 1.1.1), since the last consultation, lies well outside the forecasted 55dB contour.

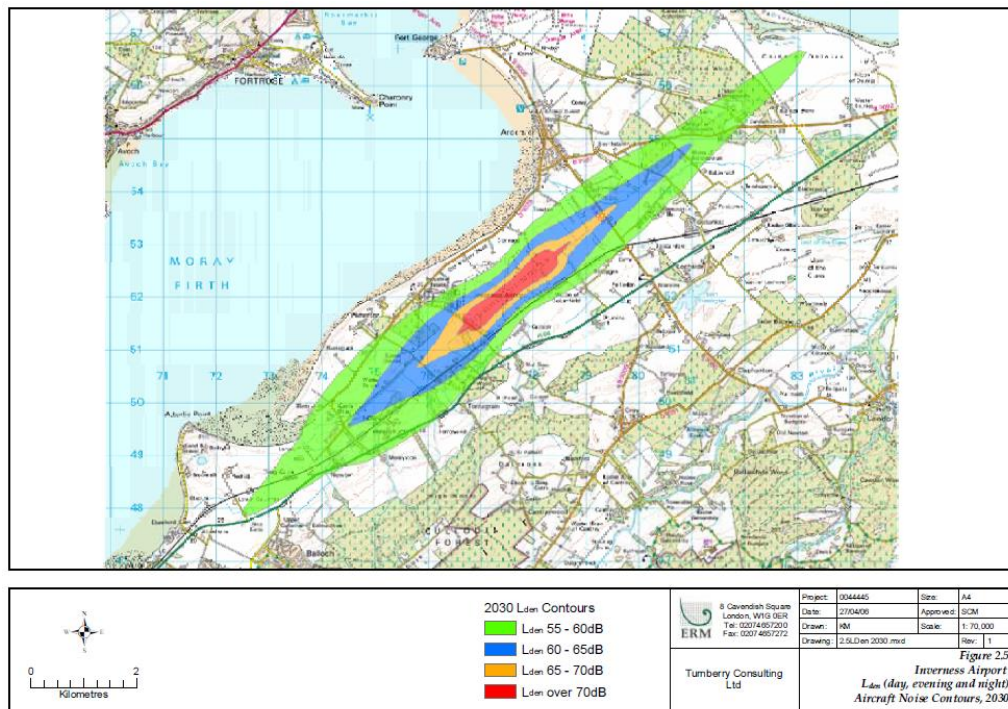


Figure 4: Inverness Airport L_{den} Contours 2030

2.1.3 Standard Instrument Departure (SID) and Standard Arrival (STAR) (Transitions)

The SID and STAR Transition tracks have not changed since the consultation and none of the new developments (Section 1) are affected by the ACP. Furthermore, current Inverness Air Traffic Control radar vectoring tracks for Instrument Flight Rules (IFR) commercial traffic taking a UK Flight Information Service (UK FIS) under a Deconfliction Service (DS) or Traffic Service (TS) replicate these routes unless deviated due to unknown, non-participating air traffic. Deviations from the preferred tracks for Inverness Airport IFR commercial traffic remains a daily occurrence with the extant airspace arrangements. However, the ACP aims to create a known environment such that deviation from these routes becomes a rare event. Therefore, the new developments are not expected to be affected by the proposed routes or any deviated traffic.

The increased availability of the Inverness Radar Service has meant that little IFR commercial traffic is required to enter the overhead for the environmentally inefficient procedural join to the Instrument Landing System (ILS) for either runway; therefore, as stated above there is no change to nominal traffic patterns but, improved predictability and stability.

2.2 Summary

The environmental assessments completed by the Environmental Research and Consultancy Department of the Civil Aviation Authority (CAA ERCD) as part of the Inverness Airport Airspace Consultation remain valid as the environmental baseline is not altered by the ACP. No new developments are affected by the proposal or are previously unaware of the Airport's presence.