HIAL Consultation Report

Proposal for the Introduction of Controlled Airspace and Optimisation of Instrument Flight Procedures at Inverness Airport

Consultation Report

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This document is of UK origin and has been prepared by Osprey Consulting Services Limited (Osprey).

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Executive Summary

Highlands and Islands Airports Limited (HIAL) is the Sponsor of a proposed change to the current arrangements and procedures in the immediate airspace surrounding Inverness Airport. The proposed change will provide enhanced protection to aircraft on the critical stages of flight in departure and final approach.

As part of the Civil Aviation Authority's (CAA) Guidance on the Application of the Airspace Change Process (Civil Aviation Publication (CAP) 725) [Reference 1], HIAL is required to submit a case to the CAA to justify its proposed Airspace Change, and to undertake consultation with all relevant stakeholders. This ensures that all stakeholders who may be directly or indirectly affected by the proposed change have an opportunity to provide comment on the proposal, as well as highlighting any environmental impacts that the proposed airspace change may have.

HIAL has engaged Osprey Consulting Services Ltd (Osprey) to project manage the Airspace Change Process on their behalf. The Inverness Airport airspace change is hereafter referred to as 'the proposal'.

This document is a Report on the consultation carried out by HIAL between 29th September and 19th April in accordance with the requirements of CAA CAP 725 [Reference 1]. It includes an analysis of all submissions received throughout the consultation and identifies the main issues raised by consultees. It also provides HIAL's views in relation to those issues and outlines, importantly, post-consultation action taken, or planned, by HIAL in order to mitigate the concerns reflected in stakeholder responses.

This document will form part of the Airspace Change Proposal (ACP) submission to the CAA. The ACP will detail the case for the proposed change to the current arrangements and procedures in the immediate airspace surrounding Inverness Airport.

Subject of the Consultation

The purpose of this consultation was to gather and analyse the views of the various stakeholders concerning a proposal to change the current arrangements and procedures in the immediate airspace surrounding Inverness Airport. Fundamentally, the consultation enabled HIAL to obtain or confirm views and opinions about the potential impact of the proposed airspace change.

Consultees

The Consultation Document was circulated to a total of 145 consultee organisations or individuals. Of these, 10 consultation emails were returned as undelivered, making the total number of consultees equal to 135. The aviation consultees included aviation parties such as the Ministry of Defence (MOD), airlines, aircraft operators, adjacent aerodromes, all local airspace users and the national bodies representing all UK aviation interests who may be affected by the proposed changes. National bodies such as the Light Aircraft Association (LAA), the British Airline Pilots' Association (BALPA), and the Airport Operators Association (AOA) were represented through the auspices of the National Air Traffic Management Advisory Committee (NATMAC), sponsored by the CAA. A number of military organisations are also members of the NATMAC.

Non-aviation stakeholders for consultation included environmental and heritage organisations, local planning authorities and the general public. In addition, the views of individual members of the public were welcomed.

Consultation Statistics

A total of 26 responses (19.3 %) responses were received from the 135 consultees contacted.

In addition, HIAL received a total of 90 responses from other individual members of the General Aviation (GA) fraternity and other parties who were not included in the formal consultee list.

Of the 116 responses received; 5 consultees supported the proposal; 99 consultees objected to the proposal; and 12 consultees provided a neutral response, whereby the consultee did not object or provided no comments on the proposal.

HIAL Conclusions

The Consultation has produced a significant opposition from the local GA community supported by the GA Alliance and the LAA Highland and Islands Strut. The foci of concern are as follows:

- The extent of the suggested Controlled Airspace (CAS) is disproportionate to density of commercial activity at Inverness Airport;
- Access arrangements to the CAS;
- The base level of some Control Areas within the overall CAS design; and
- The future impact of the Standardised European Rules of the Air (SERA), specifically the changes to visual flight requirements within CAS.

The Consultation has also raised objection from the MOD based predominantly upon access arrangements to the proposed Controlled Airspace.

HIAL is addressing these concerns in further discussions with the MOD and local GA communities (led by the GA Alliance). It is anticipated that following these discussions a further period of Consultation will take place in the latter part of 2015.

Next Stages

HIAL will submit a formal ACP, following a further stage of consultation, reflecting changes made to the airspace design to mitigate the expressed stakeholder concerns detailed in this document. The ACP will be submitted to the Safety and Airspace Regulation Group (SARG) of the CAA detailing the case for the proposed change in airspace once further analysis has been completed.

Following receipt of the formal ACP, the CAA will assess the documentation to determine if there is sufficient information presented on which to base a decision. Thereafter a 16-week period follows during which the CAA conducts its own internal analysis of the final proposal and consultation results, before arriving at a Regulatory Decision.

HIAL extend their thanks to all consultees and other individuals who took the time to participate in this consultation and for their very useful feedback.

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1 Glossary

Acronym	Meaning
ACC	Airport Consultative Committee
ACP	Airspace Change Proposal
ADI	Aerodrome Control Instrument
ADR	Advisory Route
AEF	Air Experience Flight
agl	Above ground level
AIP	Aeronautical Information Publication
AIRAC	Aeronautical Information Regulation and Control
AOA	Airport Operators Association
AOPA	Aircraft Owners and Pilots Association
APS	Approach Control Surveillance
AR	Airspace Regulation
ARPAS	Association for Remotely Piloted Aircraft Systems
ASL	Above Sea Level
ATC	Air Traffic Control
ATM	Air Traffic Management
ATS	Air Traffic Service
AWY	Airway
BAA	British Airports Association
BABO	British Association of Balloon Operators
BALPA	British Airline Pilots' Association
BATA	British Air Transport Association

Acronym	Meaning
BBAC	British Balloon and Airship Club
BBGA	British Business and General Aviation Association
BGA	British Gliding Association
BHA	British Helicopter Association
BHPA	British Hand Gliding and Paragliding Association
BMAA	British Microlight Aircraft Association
BMFA	British Model Flying Association
BPA	British Parachute Association
CAA	Civil Aviation Authority
CAP	Civil Aviation Publication
CAS	Controlled Airspace
CAT	Commercial Air Traffic
CCD	Continuous Climb Departure
CDA	Continuous Descent Approach
CFIT	Controlled Flight Into Terrain
CNS	Communication, Navigation & Surveillance
CTA	Control Area (Class D UK Airspace)
DAATM	Defence Airspace and Air Traffic Management
DAP	Directorate of Airspace Policy (part of the CAA – now SARG)
DfT	Department for Transport
ELFAA	European Low Fares Airline Association
FIR	Flight Information Region
FMS	Flight Management System
ft	Feet
GA	General Aviation

Acronym	Meaning
GASCo	General Aviation Safety Council
GAT	General Air Traffic
GAPAN	Guild of Air Pilots and Air Navigators
GATCO	Guild of Air Traffic Control Officers
GPS	Global Positioning System
HCGB	Helicopter Club of Great Britain
HQ DAAvn	Headquarters Director Army Aviation
HTZ	Helicopter Traffic Zone
IAIP	Integrated Aeronautical Information Package
IFP	Instrument Flight Procedure
IGAFG	Inverness General Aviation Focus Group
IMC	Instrument Meteorological Conditions
IoMA	Isle of Man Airport
LAA	Light Aircraft Association
LoA	Letter of Agreement
MAA	Military Aviation Authority
MATZ	Military Air Traffic Zone
MSA	Minimum Safe Altitude
MOD	Ministry of Defence
NAP	Noise Abatement Procedure
NATMAC	National Air Traffic Management Advisory Committee
NATS	The National Air Traffic Service Provider
NERL	NATS En-Route Ltd
NCHQ	Navy Command Head Quarters
NM	Nautical Miles

Acronym	Meaning
NPC	NATS Prestwick Centre
NPR	Noise Preferential Route
OS	Ordnance Survey
PSR	Primary Surveillance Radar
RAF	Royal Air Force
RMZ	Radio Mandatory Zone
RPAS	Remotely Piloted Aircraft Systems
RTF	Radiotelephony
SARG	CAA Safety and Airspace Regulation Group
SERA	Standard European Rules of the Air
SRG	Safety Regulation Group (part of the CAA)
SVFR	Special Visual Flight Rules
TMA	Terminal Control Area
TMZ	Transponder (SSR) Mandatory Zone
UAS	University Air Squadron
UAV	Unmanned Air Vehicles
UKAB	UK Airprox Board
UKFSC	UK Flight Safety Committee
VFR	Visual Flight Rules
VGS	Volunteer Gliding Squadron
VMC	Visual Meteorological Conditions
VOR	VHF Omni Directional Radio Range; a type of short-range radio navigation system for aircraft
WAL	Wallasey VOR

2 Introduction

This document is a Report of the consultation carried out by Highlands and Islands Airports Limited (HIAL) between 29th September 2014 and 19th April 2015, on the proposed change to the current arrangements and procedures in the immediate airspace surrounding Inverness Airport. The aim of this report is to present details on the statistical data arising from the responses to the consultation, together with an analysis of the feedback received.

2.1 General

HIAL is the sponsor for a proposed change to the current arrangements and procedures in the immediate airspace surrounding Inverness Airport, to provide enhanced protection to aircraft on the critical stages of flight in departure and final approach.

As part of the Civil Aviation Authority's (CAA) Guidance on the Application of the Airspace Change Process (Civil Aviation Publication (CAP) 725) [Reference 1], HIAL is required to submit a case to the CAA to justify its proposed airspace change, and to undertake consultation with all relevant stakeholders. This ensures that all stakeholders who may be directly or indirectly affected by the proposed change have an opportunity to provide comment on the proposal, as well as highlighting any environmental impacts that the proposed airspace change may have.

HIAL has engaged Osprey Consulting Services Ltd (Osprey) to project manage the Airspace Change Process on their behalf. The Inverness Airport airspace change is hereafter referred to as 'the proposal'.

This document is a Report on the consultation carried out by HIAL between 29th September 2014 and 19th April 2015. The background to this consultation and the methodology used are detailed in Annex A1 to this document. The aim of this report is to present details on the statistical data arising from the responses to the consultation, together with an analysis of the feedback received. This Report replaces the Interim Report published on the HIAL website on 8th December 2014.

HIAL would like to thank all consultees and other individuals who took the time to participate in this consultation and for their very useful feedback.

2.2 Subject of the Consultation

The purpose of this consultation was to gather and analyse the views of the various stakeholders concerning a proposal to establish Controlled Airspace (CAS), Class D and Class E + Transponder Mandatory Zone (TMZ), surrounding Inverness Airport.

Fundamentally, the consultation will enable HIAL to obtain or confirm views and opinions about the impact of the proposed airspace change.

The overall aim of the HIAL Airspace Change Proposal (ACP) is to enhance safety and improve the efficiency of Inverness Airport operations. This will be achieved through:

- The design of CAS to adequately contain current and future Inverness Airport published Instrument Flight Procedures (IFPs); and
- The provision of lateral separation of arrival and departure routes introducing Continuous Descent Approaches (CDAs) and Continuous Climb Departures (CCDs).

HIAL, as the sponsor of the proposed airspace change, is required to submit a case to the CAA to justify the change in airspace surrounding Inverness Airport. In addition, as part of the CAA's ACP, it is HIAL's responsibility to consult with all relevant stakeholders who may be directly or indirectly affected by the proposal. This document provides HIAL's views in relation to stakeholder concerns and outlines post-consultation action taken, or planned, by HIAL in order to mitigate these stakeholder concerns.

2.3 Development of the Consultee List

A full list of consultees was developed with the advice of the CAA and is given at Annex A2.

At the start of the consultation, HIAL sent out notification to 145 consultees, comprising:

- 38 Aviation "National Organisations" (CAA National Air Traffic Advisory Committee (NATMAC list);
- 19 Airport Users;
- 10 Local Aerodromes/Aviation Consultees;
- 4 Members of Parliament (MP);
- 11 Members of The Scottish Parliament (MSP);
- 13 Council Wards and Local Authorities;
- 6 Local/National Environmental Organisations; and
- 44 General Aviation (GA) Individuals (GA Focus Group (IGAFG) members).

Of these, 10 emails were returned as undelivered. Therefore the total number of consultees that received the consultation email was 135.

Further detail on the categories of consultee organisations is provided in Section 3.2 of this report.

2.4 Confidentiality

The CAA Safety and Airspace Regulation Group (SARG) requires that all consultation material, including copies of responses from consultees and others, is included in any formal submission to the CAA of an ACP.

HIAL undertakes that, apart from the necessary submission of material to the CAA and essential use by Osprey for analytical purposes in developing this Report and subsequent ACP material, HIAL will not disclose personal details or content of responses or submissions to any third parties. Osprey and HIAL consultants are signatories to confidentiality agreements in this respect.

2.5 Document structure

This document contains six main sections and four Annexes, outlined below for convenience:

- Section 1 provides a glossary;
- Section 2, this section, introduces the document;
- Section 3 details the consultation statistics;
- Section 4 provides an overview of the responses, support ratio and objections raised;
- Section 5 outlines the next stages with respect to the HIAL ACP; and
- Section 6 provides a list of references.

There are four Annexes:

- Annex A1 details the background to this consultation and the consultation methodology;
- Annex A2 lists the consultees;
- Annex A3 details the key issues and areas of concern arising from this consultation; and
- Annex A4 illustrates the consulted airspace design.

3 Consultation Statistics

The HIAL Airspace Change consultation invitations were circulated to a total of 145 stakeholder consultee organisations or individuals, of which 10 were returned as undelivered. The Consultation Document was also posted on the HIAL/Inverness website. A total of 116 responses to this consultation were received, of which 90 were submitted by individuals or parties that were not included in the original consultee list.

3.1 Overview

This section describes the categories of consultee organisations and individuals that were contacted and gives a breakdown of the responses received.

3.2 Consultee Organisations

The HIAL Airspace Change consultation invitations were circulated to a total of 145[1] stakeholder consultee organisations or individuals detailed in Annex A2.

As stated in Section 2.3, 10 consultation emails were returned as undelivered, making the total number of consultees equal to 135.

The consultation document was distributed via a dedicated link on the HIAL website[2] through email to all listed consultees.

Consultees broadly fall into two categories:

- Aviation consultees; and
- Non-aviation consultees.

Aviation consultees included aviation parties such as the MOD, airlines, aircraft operators, adjacent aerodromes, all local airspace users and the national bodies representing all UK aviation interests who may be affected by the proposed changes. National bodies such as the Light Aircraft Association (LAA), British Airline Pilots Association (BALPA), Airport Operators Association (AOA) etc. are represented through the auspices of the NATMAC, sponsored by the CAA. A number of military organisations are also members of the NATMAC.

Non-aviation stakeholders consulted includes environmental and heritage organisations, local planning authorities and the public. The consultee groups are detailed in Figure 1 below.

[1] It should be noted that NATMAC comprises a total of 38 organisations;, this analysis reflects the views of the organisations as a whole and not of the individuals representing them.
[2] http://www.hial.co.uk/inverness-airport/jet-centre/nats-nautical-information-service/

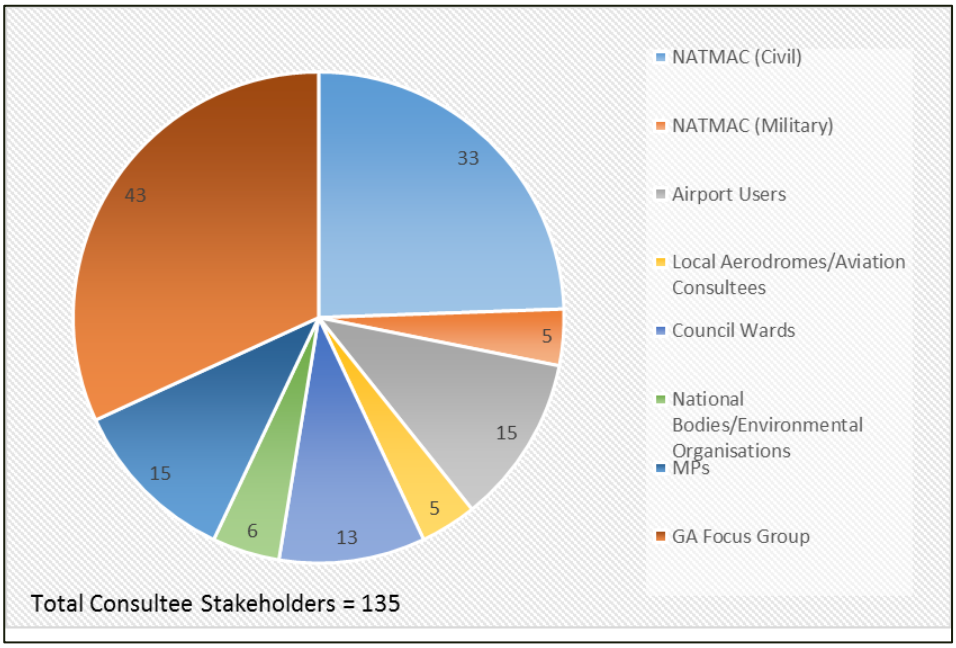

Figure 1 Distribution of Consultees

3.3 Responses

A total of 26 responses (19.3 %) to this consultation were received from consultees. A breakdown of these is provided in Table 1 and Figure 2 below.

	Consultee Group	Number Consulted	Responses	%
1	NATMAC (Civil)	33	11	33.33
2	NATMAC (Military) [3]	5	1	20.00
3	Airport Users	15	3	20.00
4	Local Aerodromes/Aviation Consultees	5	4	80.00
5	MPs	15	0	0
6	Council Wards	13	2	15.38
7	National Bodies/Environmental Organisations	6	2	33.33

[3] The Defence Aviation and Air Traffic Management (DAATM)

	Consultee Group	Number Consulted	Responses	%
8	GA Focus Group	43	3	6.82
	Totals	**135**	**26**	**19.3 %**

Table 1 Responses from Consultees

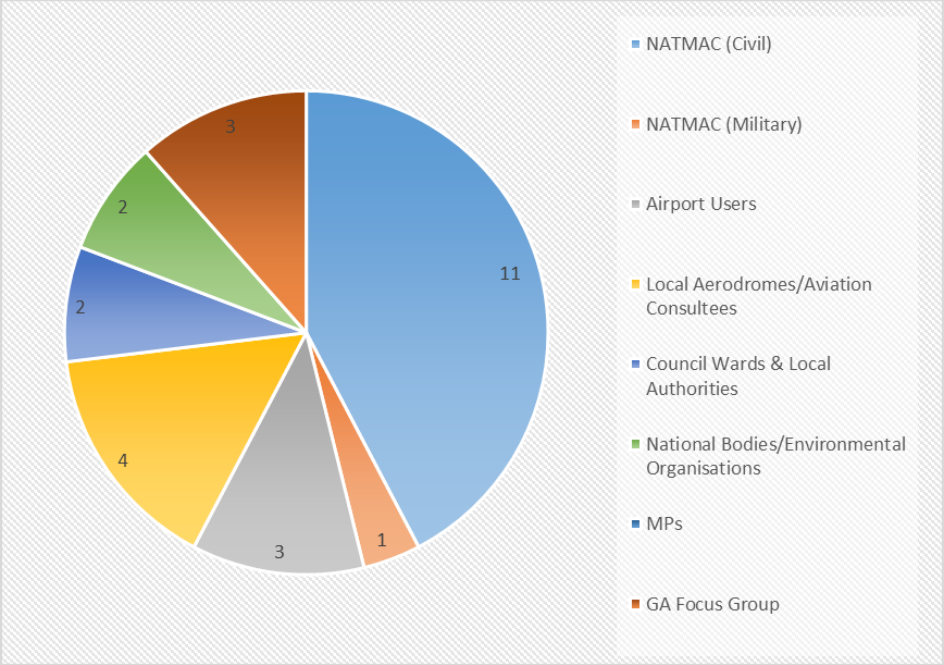

Figure 2 Breakdown of Consultee Responses Received

In addition to the 26 responses received from consultees (distribution shown in Figure 1), a further 90 submissions were received from other individuals or parties that were not included in the original consultee list, making the total number of responses equal to 116.

It should be noted that "NATMAC (Civil)" and "NATMAC (Military)" comprise those organisations who are members of the CAA's NATMAC. The NATMAC consultee list includes some CAA Departments who, for reasons of CAA impartiality, do not respond to consultations.

MOD provided a consolidated response, through Defence Airspace and Air Traffic Management (DAATM), on behalf of all military consultees. This is standard MOD practice. Thus, all military consultees are deemed to have responded.

It is noted that the majority of responses received to date were from individuals that were not included in the formal consultee list detailed in Annex A2.

3.4 Meetings with Major Stakeholders

Prior to the commencement of the consultation period, a number of meetings were held with some of the major stakeholders. Although most of these organisations had been contacted during the initial requirements capture phase, the purpose of these meetings was to present the detail that would be incorporated into the Consultation Document to ensure there were no surprises for stakeholders when it came to formal comment.

Details of the pre-consultation meetings that were organised with the major stakeholders are given in Table 2 below.

Stakeholder	Meeting Date	Notes
Inverness General Aviation Focus Group (IGAFG)	21st August 2013 31st October 2013 4th March 2014	Dialogue with this group, which contains representatives of the GA Alliance, local LAA & BGA, is continuing.
General Aviation Presentation	29th July 2013	
Inverness Airport Consultative Committee (ACC)	30th July 2013 4th September 2013	
RAF Lossiemouth	28th January 2013	On-going dialogue through the RAF Lossiemouth Airspace Users Group
Defence Airspace and Air Traffic Management (DAATM)	8th July 2013 9th September 2013	Along with the SARG Case Officer

Table 2 Pre-Consultation Stakeholder Meetings

4 Analysis of Responses

Of the 116 responses received in total, 5 supported the proposal, 99 consultees objected to the proposal and 12 consultees provided a neutral response, whereby they did not object or provided no comments on the proposal.

4.1 Introduction

This section provides details on the number of responses received from the various organisations and individuals that were consulted. It also explores the support ratio of consultee responses received to give a general indication on the stakeholder acceptance of this proposal.

4.2 Response Support Ratio

Of the 116 responses received during the consultation period:

- 5 consultees (4.3 %) supported the proposal;
- 99 consultees (85.3 %) objected to the proposal; and
- 12 consultees (10.3 %) provided a neutral response, whereby the consultee did not object or provided no comments on the proposal.

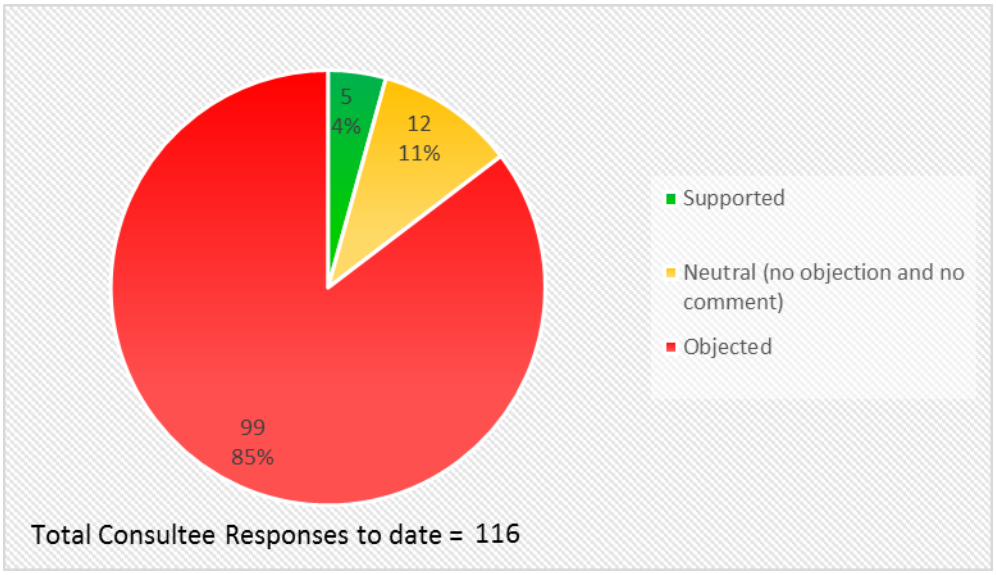

Figure 3 Support Ratio from All Responses Received

4.3 Submissions from Individuals and Other Parties

Of the 90 responses to the consultation received from those not in the formal consultee list, the majority were from GA and private pilots, some of whom are members of a local flying/gliding club.

Notwithstanding that their representative organisations may have submitted detailed responses to the consultation on behalf of their membership, all of the additional individual submissions have been documented and analysed by HIAL and will form part of the ACP to be made to the CAA in due course. Any new issues identified in the individual submissions which had not already been raised by the formal consultees are embraced within the key issues (Table 4) and areas of concern listed in Annex A3 to this report.

Responses were also received from the following gliding clubs that were not included in original consultee list:

- Bowland Forest Gliding Club;
- Fulmar Gliding Club;
- Highland Gliding Club; and
- Highland HG & PG Club.

4.4 Key Issues Arising

This response analysis process identified a number of key themes in those responses that objected to the proposal. There are outlined in Table 3 below together with the number of consultees who expressed that view in their response.

Nature of objection	Number of consultees
Proposal is unjustified based on low Air Traffic Movements (ATM) and unrealistic traffic projections	40
Proposal fails to demonstrate safety improvements; proposal would compromise safe and efficient GA operations	60
Concern over staffing levels and the ability of Inverness to maintain radar coverage for all Airport opening hours	9
The amount of CAS being proposed is too extensive for such a small regional airport (Inverness Airport) with low air traffic volumes	43
The requirements of gliders and GA aircraft are not satisfied and would be adversely impacted, with GA pilots avoiding CAS leading to increased Controlled Flight Into Terrain (CFIT) incidents	18
Concern over the requirement for GA to carry Mode S transponders and the resulting cost implications	11
Concern over the proposal's economic impact on local gliding clubs	13
Concern that entering Class D CAS would be at the discretion of Inverness Air Traffic Control (ATC) (ATC would find it difficult to accommodate the requirements of gliders)	7

Unless equipped with GPS difficult to recognise the new Controlled Area (CTA) boundaries as these are not linked with landmarks	1
Most of the projected routes in the proposal would result in an increase in track mileage from those that are typically used at present	2
Concern regarding residential noise implications	6

Table 3 Nature of Objections Raised by Consultees

Table 4 below highlights the specific issues raised regarding the CAS design and presents some solutions proposed by the consultees.

CTA Reference	Nature of Issue	Number of Consultees who Raised Issue	HIAL Proposed Solution or Redesign
CTA-2	CTA-2 will severely impact general handling flying out of Inverness & Dornoch	1	CTA-2 was initially classed as Class D airspace. A change of classification to Class E airspace (with the inclusion, within the same volume, of transponder carriage requirements; Class E + Transponder Mandatory Zone (TMZ)) would mitigate GA VFR concerns in the Black Isle and Dornoch area.
CTA-3	To the East, CTA-3 encroaches the Kinloss Military Air Traffic Zone (MATZ) creating further problems for a non-radio equipped aircraft	1	The encroachment is by approximately 1 NM, which is viewed as a small imposition. Military and Moray Flying Club operations within the Kinloss MATZ are of greater concern. It is anticipated that these operations can be facilitated through a robust Letter of Agreement (LoA) with RAF Lossiemouth (the Tripartite LoA including Tain Range).
CTA-4, CTA-5	CTA-4 and CTA-5 will act as a barrier to gliding activity below Flight Level (FL) 95 (climbing above this level would require an oxygen system)	2	The maximum altitude of Inverness Class D is capped at 5,500 ft or FL 55. The airspace above would become Class E+TMZ. This does not totally mitigate the impact on non-radio equipped gliders; however, it is anticipated that these operations can be facilitated through a robust LoA with Feshiebridge or the BGA.
	Insufficient height above terrain within CTA-4 and CTA-5 to soar a glider	1	The airspace above 5,500 ft or FL 55 would become Class E+TMZ. This does not totally mitigate the impact on non-radio equipped gliders; however, it is

CTA Reference	Nature of Issue	Number of Consultees who Raised Issue	HIAL Proposed Solution or Redesign
			anticipated that these operations can be facilitated through a robust LoA with Feshiebridge or the BGA.
CTA-8	Concern on the introduction of CTA-8 – all flights to the West and Northwest will become impractical and access permanently lost	1	The objector proposed that CTA-8 is modified to avoid populated areas/National Park. However, it appears that the objector did not understand that Commercial Air Traffic (CAT) operating in and out of Inverness Airport currently use that airspace to access airway N560. The Airspace Classification of CTA-8 is Class E+TMZ.
	Holding pattern above CTA-8 and resulting noise impact	4	The objectors proposed that the GUSSI holding pattern be placed on the opposite side of the flight path, i.e. on the NW side. However, it appears that the objector did not understand that the GUSSI Hold already exists, utilised as an en-route hold.
	Concern regarding the CTA-8 and its proposed base of 6000 ft above mean sea level (amsl) – only a small proportion of gliders are equipped with transponders and the VHF transmission range will be near or beyond its useful range, so most glider pilots will have difficulty contacting Inverness ATC for clearance to enter CTA-8	1	The objector proposed that consideration should be given to raising the base altitude in this area. However, the base altitude is pre-determined by the procedure profile and 'containment' requirements, within CAS, for a procedure. The procedures are in draft form at the time of writing and where possible the base altitude will be raised. However, with both CTAs-8 and 6 as Class E+TMZ, it is anticipated that glider operations can be facilitated through an extension to the current 'GUSSI Box' NATS, Inverness & BGA LoA.
	Concern CTA-8 overhead RSPB Insh March Bird Sanctuary, a large sanctuary for nesting birds and forming the Spey Valley route for migrating geese	1	The objector proposed that the CTA-8 is moved to the West. However, it appears that the objector did not understand that CAT operating in and out of Inverness Airport currently use that airspace to access airway N560.
CTA-9	CTA-9 will have a	1	The original CTA-9 is being removed from

CTA Reference	Nature of Issue	Number of Consultees who Raised Issue	HIAL Proposed Solution or Redesign
	severe impact on aerobatic flying out of Dornoch		the design.

Table 4 Issues Raised Regarding the Proposed CTAs at Inverness Airport

It was noted that 15 consultees who objected to the proposal, supported the establishment of a Radio Mandatory Zone (RMZ) as an alternate airspace construct. However, at present this is not a recognised permanent airspace construct for regional airports and HIAL considers that the RMZ concept would provide insufficient protection to scheduled Commercial Air Transport (CAT) procedures.

The key areas of concern together with other specific issues raised, together with HIAL's consideration of them, are detailed at Annex A3 to this report.

4.5 Objections

A total of 99 objections to the proposal were received throughout the consultation period. The consultee types and respective numbers are given below:

- 7 objections from NATMAC (Civil) consultees;
- 1 objection from a NATMAC (Military) consultee;
- 84 objections from individuals/other parties;
- 1 objection from an Airport user;
- 4 objections from local aerodromes/aviation consultees; and
- 2 objections from members of the IGAFG.

The responses received are presented in more detail in Annex A3 of this report. The following sections outline the nature of the objections received from local aviation consultees and NATMAC members.

4.5.1 Cairngorm Gliding Club

The Cairngorm Gliding Club is located at Feshiebridge; members expressed their alarm at the proposed airspace changes, stating that they would have a very drastic and adverse effect upon the club's operations. Although Feshiebridge is 26 NM from Inverness Airport, the club stated that the proposed changes, particularly the creation of CTA-8 and CTA-6 (which encroach to within a few miles of the Feshiebridge airstrip) will cause tremendous difficulty.

The bases of these proposed new pieces of airspace will be at 6,000 feet (ft) and 5,000 ft, respectively, above sea level. Cairngorm gliders frequently operate at heights well in excess of this height and, as already indicated, this would seriously damage the club's operations and, as a consequence, the club more generally. The club argues that there is no evidence of CAT operating above Kingussie and Newtonmore at such low levels and that it is far from clear from the present proposals why such airspace restrictions above these villages should suddenly have become necessary.

4.5.2 Knockbain Farm Airstrip

Knockbain Farm Airstrip fully concur with the LAA comments put forward through the IGAFG and state that the proposal will un-necessarily compromise GA safety. In addition, Knockbain highlighted the following negative results should the specific proposal be implemented:

- Pilots not wishing to enter CAS, or not entitled to do so because of licensing or weather considerations, will stay under, or adjacent to, the CAS and will prefer to monitor Safetycom or Tain/Lossie in order to gain some traffic awareness.
- Inverness ATC will not be able to verify radar returns under or adjacent to CAS, especially as many GA aircraft do not carry Mode C/S transponders. These aircraft may be denied a UK Flight Information Services (FIS) Basic Service (BS) as a result.
- GA aircraft attempting to navigate to/from Knockbain and avoid CAS will suffer a higher workload in monitoring position in areas of complex airspace restrictions while at the same time maintaining legal minimal separation from terrain. Such complexity will compromise effective look out from the cockpit and place over reliance on basic Global Positioning System (GPS) readouts.

Knockbain pointed out that it is standard protocol for pilots operating out of Knockbain to establish VHF contact with Dalcross (*assumed to be Inverness Airport ATC*) and for aircraft to make use of a basic information/radar service provided by Inverness Approach.

4.5.3 Deeside Gliding Club

Deeside Gliding Club stated that the size of the proposed CTA/Control Zone (CTR) airspace is too large to accommodate proposed climb out and landing patterns and question whether this is truly necessary. The Club favours the creation of a carefully dimensioned RMZ to ensure that traffic flows effectively.

The Club argues that access to Class D airspace will be at the discretion of Inverness ATC and historically, in the current Class G regime, this has not been easily achieved.

Deeside Gliding Club members expressed their concern at the potential economic impact of the proposal upon the local community, shops, hotels and restaurants.

4.5.4 Highland Gliding Club (Easterton Airfield)

Highland Gliding Club referred to a statement in the proposal that states that the proposed CAS will have no effect on Easterton Airfield operations and stressed that this is fundamentally incorrect.

The Highland Gliding Club members argue that gliders and light aircraft from the airfield often make use of the airspace to the west due to the prevailing wave conditions that occur in southerly winds in particular. The proposed CAS will close off some of the closest and best conditions available from the site, particularly in the Lochindorb area. The economic impact of the proposal with respect to the installation of transponder equipment and radio licenses was also pointed out. In summary the club stated their concerns as follows:

- Effectively all flights to the west and northwest will become impractical.

- Club members will permanently lose access to some of the best soaring in the UK.
- Safety will be significantly reduced due to having to remain between new airspace and high terrain and/or communicate with ATC whilst trying to soar above hostile terrain.
- Significant costs will have to be borne by our members if transponders are to be made mandatory and/or they have to invest in obtaining a radio license.

4.5.5 General Aviation Alliance (GA Alliance) and the LAA

Discussions with the LAA and GA Alliance are ongoing with HIAL Inverness Airport through the IGAFG. This group is also coordinating a further response from the BGA. Individuals within the organisations, and the IGAFG, have made responses detailed in Table 4 and Annex A3.

4.5.6 Ministry of Defence (DAATM)

The MOD objects to the current Inverness ACP; it questions the requirement for CTA-2 and CTA-9 given the scale of commercial operations utilising the associated Class E airways structure.

The MOD seeks further clarification on the requirement for the dimensions of CTA-3 and CTA-4 given their encroachment into the Kinloss MATZ. The MOD is not opposed to the concept of Air Traffic Service (ATS) provision by RAF Lossiemouth within the Inverness CTA, but requires the CAA to issue policy/approval.

The MOD questions the capacity of Inverness ATC to facilitate transits of large scale Exercise Formations, with resultant impact to MOD operations. The MOD seeks further dialogue to address the issues above and to facilitate discussions on a mutually acceptable LoA that would remove its overall objection to this ACP proposal.

Dialogue with the MOD to address the concerns is ongoing.

4.5.7 British Gliding Association (BGA)

The BGA is the governing body of British Gliding and represents 84 clubs and 7,000 members. The BGA is of the opinion that as it stands, the proposal would be highly detrimental to gliding operations and is likely to decrease overall flight safety.

BGA consider the stated traffic growth predictions to be misleading, based on an out-of-date document (the 2007 Inverness Airport Master Plan), growth predictions are being reassessed for further consultation and the proposed CAS volume is unjustified. The Association further state that they have no objection to the existence of CAS where it is in the clear interests of overall aviation safety and covers volumes of airspace in which significant numbers of passenger carrying aircraft must fly – however, they state that this is not the case here. BGA also fully supports the LAA and GA Alliance responses.

The Association point out that for several years it has been BGA policy for gliders to contact voluntarily Inverness when near the Airport or when crossing the advisory routes. In effect, the Association has been treating these areas as if they were an RMZ or TMZ. This voluntary policy appears to have had the desired result and avoided conflict between gliders and Commercial Air Transport (CAT) without creating what are effectively exclusion zones with Class D airspace (the same classification as the

London Terminal Control Area (TMA)). The BGA also stress that Inverness Controllers have a tendency to over-react to the presence of any other aircraft.

The BGA argue that there may be a case for a small, carefully designed RMZ in the vicinity of Inverness Airport.

4.5.8 Aircraft Owners and Pilots Association UK (AOPA UK)

The Aircraft Owners and Pilots Association UK (AOPA UK) state that to reduce the risk of infringements and preventing marginal (referred as '*scud running*' in the individual objection) Visual Flight Rules (VFR) manoeuvres into terrain, CTA base levels should ideally be in 500 ft increments and start above Minimum Safe Altitude (MSA) - usually 2000 ft above ground level (agl). The airspace should return to Class G when the aerodrome is closed.

5 Post Consultation Actions

HIAL will submit a formal ACP to SARG of the CAA after a further period of consultation detailing the case for the proposed change, including adjustment to accommodate responses to this consultation, to the current arrangements and procedures in the immediate airspace surrounding Inverness Airport.

5.1 Post-Consultation Review

Following the 29th September 2014 and 19th April 2015 consultation period, all comments received have been thoroughly analysed and reviewed by HIAL (and Osprey) in order to identify emerging issues of concern. HIAL remains committed to mitigate, as far as is practicable, the principle concerns of those consultees who objected to this proposal.

The approach taken by HIAL was to review the airspace design in the light of the significant points of objection raised by consultees and to continue a dialogue with the principle objectors to assuage, as far as is practicable, the concerns.

5.2 Post-Consultation Airspace Development

Figure 1 in Annex A4 shows the design for the Inverness Airport CAS within the 29th September 2014 to 19th April 2015 consultation.

Following closure of the Consultation, and in the light of the responses received, HIAL are undertaking a detailed review of particular aspects of the proposed airspace design, namely:

5.2.1 Limiting the Ceiling of Inverness Class D CAS to 5,500ft (FL55)

Lowering the ceiling of the proposed Class D volume to 5,500 ft with the provision of Class E+TMZ above this to FL 95 will mitigate to a large degree the VFR operator access concerns for those with a transponder and/or radio. Transponder-equipped VFR aircraft would not be required to contact Inverness Airport ATC Prior to entering Class E+TMZ airspace.

5.2.2 Review of CTA-2

A change of airspace classification for CTA-2 to Class E+TMZ will mitigate base of CAS concerns near Knockbain airstrip and over the Black Isle for VFR operators with a transponder and/or radio. Those with radio only would need to call Inverness ATC relaying their intentions and to build information on any military traffic entering or exiting Tain Range.

5.2.3 Review of CTA-6

A change of airspace classification for CTA-6 to Class E+TMZ will mitigate base of CAS and access concerns near Feshiebridge aerodrome for VFR operators with a transponder, or radio where not equipped with a transponder. An amendment to the

current 'GUSSI Box' NATS, Inverness & BGA LoA will further facilitate glider operations CTA-8 (Class E+TMZ).

5.2.4 Review of CTA-9

Review of the volume to CTA-9 would address concerns with regard to complications to the airspace structure that has to be navigated by VFR operators. CTA-9 is being removed from the original design.

5.2.5 CTR Ceiling

Lowering the ceiling of the CTR will mitigate the concern regarding VFR transits of the airspace above Inverness Airport and the future potential impact of the Standard European Rules of the Air (SERA).

5.3 Supplementary Consultation

In conjunction with the post-consultation airspace design review detailed above, HIAL held post-consultation meetings with specific interested parties to discuss their particular concerns and whether potential modifications to the airspace configuration would allay their concerns.

The following meetings took place between February 2015 and May 2015:

Stakeholder	Meeting Date	Notes
DAATM	5th February 2015	LoAs & Military Service Provision in CAS
IGAFG	16th March 2015	Information
IGAFG	21st May 2015	CAS Mitigations

5.4 HIAL Conclusions

The Consultation has produced a significant opposition from the local GA community supported by the GA Alliance. The foci of concern are as follows:

- The extent of the suggested CAS is disproportionate to density of commercial activity at Inverness Airport;
- Access arrangements to the CAS;
- The base level of some Control Areas within the overall CAS design; and
- The future impact of SERA, specifically the changes to visual flight requirements within CAS.

The Consultation has also raised objection from the MOD based predominantly upon access arrangements to the suggested CAS.

HIAL are addressing these concerns in further discussions with the MOD and local GA communities (led by the GA Alliance). It is anticipated that following these discussions a further period of Consultation will take place in the latter part of 2015.

5.5 Next Stages of the ACP

The consultation process constitutes the third stage of the CAA's overall process detailed in CAP 725 [Reference 1] leading to an ACP.

HIAL will submit a formal ACP to SARG of the CAA, following a further period of consultation, reflecting changes made to the airspace design to mitigate the expressed stakeholder concerns detailed in this document. The formal ACP details the case for the proposed change in airspace once analysis of all further responses has been completed. It is a requirement of the consultation process that HIAL will provide the CAA with full details of the consultation (including copies of responses and correspondence) together with all documentation necessary for the promulgation of the proposed airspace change.

Following receipt of the formal ACP, the CAA then requires a 16-week period to conduct its own internal analysis of the final proposal and consultation results, before arriving at a Regulatory Decision.

In the event that the CAA, without the need for further design optimisation or analysis, accept the ACP, then it is proposed that implementation takes place on a single date. All new Instrument Flight Procedures (IFP) and new airspace would be activated simultaneously, on a double AIRAC (Aeronautical Information Regulation and Control) cycle. This approach would not create an overly large training burden for Inverness ATC and NATS Prestwick Area Control Centre (ACC) personnel or for operator Flight Management System (FMS) updates.

6 References

Reference	Name	Origin
1	CAP 725 CAA Guidance on the Application of the Airspace Change Process Third Edition (corrected) April 2007	CAA ISBN 978 0 11790 739 3
2	Code of Practice on Consultation July 2008	Cabinet Office URN 08/1097

Table 5 Table of References

A1 Consultation Background and Methodology

A1.1 Background to the Consultation

HIAL has identified the need for a change to the arrangements and procedures in the immediate airspace surrounding Inverness Airport to provide requisite protection to aircraft on the critical stages of flight in departure and final approach.

Inverness Airport operations are currently considered to be restricted by departure and arrival procedures that are not afforded the protection of CAS, require persistent ATC intervention, some at very short notice, and are subject to protracted rerouting. Hence, HIAL believes that CAS is necessary to improve the levels of protection for commercial and other aircraft operating to and from Inverness Airport in the critical stages of flight on approach and immediately after departure.

In order to enhance safety and improve the efficiency of Inverness Airport operations, HIAL are proposing to achieve this through:

- The design of Class D and Class E + Transponder Mandatory Zones (TMZ) airspace to adequately contain current and future Inverness Airport published IFPs; and
- The provision of lateral separation of arrival and departure routes introducing CDAs and CCDs.

CAS will provide additional protection for CAT during arrival and departure (both vulnerable phases of flight for airliners) on current and proposed new IFPs, to optimise the airspace with efficiency and environmental benefit for all Airport users and the local community in general. The re-design of operating procedures includes the development of new aircraft routes both to and from the Airport. Currently, deviation of airliners operating to and from the Airport is a regular occurrence due to the unknown, and unpredictable, nature of the Class G uncontrolled airspace surrounding the Airport. The introduction of CAS will reduce the likely occurrence of aircraft deviations, particularly of those airliners both on Airport approach and departure, and it is the reduction in number of these deviations that will reduce the total track miles; consequently reducing unnecessary aircraft emissions and the over-flying of local communities whilst at the same time enhancing safety. The routes detailed in the proposal also allow for the future introduction of technological developments to provide reduced passenger aircraft track miles flown; In addition, the new routes introduce CCD and CDA to the CAT aircraft operations. These environmentally friendly procedures lead to reduced aircraft emissions and noise levels within both the initial and latter stages of flight, further minimising disruption near Inverness Airport.

This consultation is not about Inverness Airport future development or aspects of Government Aviation Policy. It is not about the Noise Abatement Procedures (NAP) for departing aircraft or Noise Preferential Routes. The proposed airspace arrangements are compatible with the existing NAP and Noise Preferential Routes (NPR). HIAL have noted comments on issues included in consultee responses relating to the CAA's decision to replace Class F airspace in UK

FIRs[4], but have discounted these from the Inverness Airport airspace change consultation analysis.

HIAL, as the Sponsor of the proposed airspace change, is required to submit a case to the CAA to justify the change in the airspace surrounding Inverness Airport. In addition, as part of the CAA's ACP, it is HIAL's responsibility to consult with all relevant stakeholders who may be directly or indirectly affected by the proposal.

A1.2 Method of Consultation

The HIAL Airspace Change consultation was conducted in accordance with the principles set out in the Cabinet Office Code of Practice on Consultation [Reference 2], as required by the CAA.

A comprehensive Consultation Document was prepared by HIAL, with the assistance of Osprey. Full details of the proposed change, including rationale, perceived impacts and the mitigation measures undertaken by HIAL, were provided in the Consultation Document.

A link to the Consultation Document was made available on the HIAL website. All consultees were notified by email detailing the consultation and how to access the Consultation Document.

Local aviation stakeholders were engaged at an early stage during the design process. Prior to the preparation of the Consultation Document, meetings were conducted with the following major stakeholders:

- Inverness General Aviation Focus Group (IGAFG);
- General Aviation Presentation;
- Inverness Airport Consultative Committee (ACC);
- RAF Lossiemouth; and
- DAATM.

The primary purpose of these meetings was to present the detail that will be incorporated into the Consultation Document to ensure there are no surprises for stakeholders when it comes to formal comment.

Full consultation commenced with wide circulation of the electronic Consultation Document to all identified stakeholders on 29th September 2014 on completion of the design process and environmental studies. The consultation process was originally planned to run until 4th January 2015 - a period of 14 weeks. This allowed a minimum of twelve weeks required for formal consultation[5], recognises the number of Public Holidays during the period and provided scope for any unforeseen delays at the start, or any significant issues that might arise during the process. The duration of the consultation was extended to 22nd February 2015, allowing for the Christmas holiday period and subsequently to 19th April 2015 as few responses had been received by this date.

[4] CAA Decision Letter - http://www.caa.co.uk/docs/2111/20140715DecisionLetter_FINAL.pdf
[5] The Cabinet Office Code of Practice on Consultation [Ref 2] and the CAA requirements specify a minimum period of 12 weeks for consultation.

Consultees were asked to consider the proposal and submit a response to HIAL using an online response form on the HIAL consultation website or through a dedicated email address (inverness@ospreycsl.co.uk).

In order to promote maximum response, the following reminders were sent throughout the consultation period:

- Email reminder sent on 19th November 2014 (more than one month before the end of the consultation period), to those consultees who had not yet responded;
- Email reminder sent on 18th December 2014 to the NATMAC members, local Councils and MPs;
- Email notification sent on 13th January 2015 regarding the extended consultation deadline;
- Email reminder sent on 2nd February 2015 regarding the extended consultation deadline; and
- Email notification sent on 16th March 2015 regarding the extended consultation deadline.

A2 Stakeholder / Consultee List

A2.1 Aviation Consultees: Airport Users

Airport

Consultee
Airport Consultative Committee
Highland Jet Centre
Air ITM
Benair
Capital Trading Aviation
Dinair
Eastern Airways
EasyJet
Edinburgh Air Charter
Flybe
Gama Aviation
Helvetic/Falcontravel
KLM
LAA Highland & Islands Strut
LEA
Loganair
NOMAD
PDG Helicopters
RVL Group

Local

Consultee
Aboyne Glider Site / Deeside Gliding Club
Alturlie Hang Glide Site
Culbokie Airstrip
Dornoch Airstrip
Easter Airstrip
Eskadale Water Airstrip
Feshiebridge Glider Site / Blackmill Airstrip
Knockbain Airstrip
Moray Flying Club / No 663 Volunteer Glider Squadron (VGS)
Nairn and Gollanfield Heliports / HG Helicopters

A2.2 Aviation Consultees: National Organisations (NATMAC)

Consultee	Also known As
Aircraft Owners and Pilots Association	AOPA UK
Airport Operators Association	AOA
Association of Remotely Piloted Aircraft Systems	ARPAS
Aviation Division Navy Command Headquarters	NCHQ
Aviation Environment Federation	AEF
BAE Systems Warton	BAES
British Air Transport Association	BATA
British Airline Pilots' Association	BALPA
British Airways	BA
British Balloon and Airship Club	BBAC
British Business and General Aviation Association	BBGA

British Gliding Association	BGA
British Hang Gliding and Paragliding Association	BHPA
British Helicopter Association	BHA
British Microlight Aircraft Association	BMAA
British Model Flying Association	BMFA
British Parachute Association	BPA
Civil Aviation Authority	CAA SARG
Defence Airspace and Air Traffic Management (incl. the Military User Advisory Consultative Team)	DAATM (MUACT)
Euro UAV Systems Centre Ltd	UAVS
European Low Fares Airline Association	ELFAA
General Aviation Safety Council	GASCo
Guild of Air Pilots and Air Navigators	GAPAN
Guild of Air Traffic Control Officers	GATCO
Headquarters Director Army Aviation	HQ DAAvn
Heavy Airlines	
Helicopter Club of Great Britain	HCGB
Light Aircraft Association	LAA
Light Airlines	
Low Fares Airlines	
Military Aviation Authority	MAA
Ministry of Defence	MOD
MOD Flight Test Regulator	
NATS (NSL)	NSL
NATS En-Route Ltd	NERL
PPL/IR Europe	PPL/IR
UK Airprox Board	UKAB

UK Flight Safety Committee	UKFSC
3 AF-UK/A3	

A2.3 Inverness GA Focus Group Members

Consultee
Alturlie Hang Glide Site
British Gliding Association
Dornoch Airstrip
Easter Airstrip
Easterton Airstrip
Feshiebridge Glider Site / Blackmill Airstrip
Highland Aviation
Knockbain Airstrip
LAA Highland & Islands Strut
Moray Flying Club / No 663 Volunteer Glider Squadron (VGS)
PDG Helicopters
RAF Lossiemouth Airspace Users

A2.4 Non-Aviation Consultees: National Bodies

Consultee
UK Association of National Park Authorities
Cairngorms National Park, Planning Department
National Trust for Scotland
Scottish Natural Heritage
Friends of the Earth
Association for the Protection of Rural Scotland

A2.5 Non-Aviation Consultees: Regional Council Authorities

Consultee
Highland Unitary Council
Moray Unitary Council

A2.6 Non-Aviation Consultees: Highland Unitary Community Councils

Inverness, Nairn, Badenoch and Strathspey Area Wards

Consultee
Aird and Loch Ness
Badenoch and Strathspey
Culloden and Ardersier
Inverness Central
Inverness Millburn
Inverness Ness-Side
Inverness South
Inverness West
Nairn

Caithness, Sutherland and Easter Ross Area Wards

Consultee
Cromarty Firth
Tain and Easter Ross

Ross, Skye and Lochaber Area Wards

Consultee
Black Isle
Dingwall and Seaforth

A2.7 Information Organisations: Members of Parliament

UK Parliament

Consultee	Constituency
Mr J Thurso	Caithness, Sutherland and Easter Ross
Mr D Alexander	Inverness, Nairn, Badenock and Strathspey
Mr A Robertson	Moray
Mr C Kennedy	Ross, Skye, Lochaber

Scottish Parliament

Consultee	Constituency
Mr D Thompson	Skye, Lochaber and Badenoch
Mr R Lochhead	Moray
Mr F Ewing	Inverness and Nairn
Mr R Gibson	Caithness, Sutherland and Ross
Mr M MacKenzie	Highlands and Islands
Ms Rhoda Grant	Highlands and Islands
Mr David Stewart	Highlands and Islands
Mr Jamie McGrigor	Highlands and Islands
Ms Mary Scanlon	Highlands and Islands
Mr John Finnie	Highlands and Islands
Ms Jean Urquhart	Highlands and Islands

A2.8 Information Organisations: Civil Aviation Authority

Consultee	Also known As
Safety and Airspace Regulation Group	SARG
Safety and Airspace Regulation Group Head of Aerodrome & Air Traffic Standards Division	SARG AAA Manager Aerodromes

Safety and Airspace Regulation Group Flight Ops Division	SARG Flight Ops Division
Safety and Airspace Regulation Head of Airspace Regulation	SARG AAA Manager Airspace Regulation

A3 Key Issues and Areas of Concern arising from the Consultation

No	Issue	HIAL Comment
1	Concern over loss of Class G airspace in the region of Culbokie and the south coast of the Black Isle. Likely infringement due to limited airspace volume.	GA aircraft operating over the Black Isle/Cromarty Firth/Culbokie are actually likely to endure fewer requests for restrictions/coordination whilst flying outside the proposed CAS. This is especially true for non-transponder equipped aircraft, allowing VFR transits west of the city towards the Great Glen and the south without providing any confliction effect upon traffic already within CAS.
2	The safety concerns identified in the report are adequately addressed by Option 2 within the report. Option 4 is draconian and unjustified in the light of the document filed.	Option 2 only provides mitigation against incidents involving Lossiemouth based aircraft only, operating within 15 NM of Inverness. It affords no protection against other MOD operated aircraft, any foreign operated military aircraft, or indeed any civilian aircraft. Given the high terrain, weather uncertainties and poor communications at low level, the most effective way to safely separate civil airliners and military fast jets is to have CAS and uncontrolled airspace clearly marked on universal charts.
3	The following changes should be made: 1) Airspace base should be in multiples of 500 ft to avoid	1) Although this could easily be changed it would result in a larger impact. The figures having been calculated to provide the minimum possible volume of CAS as is required. The base of each CTA is

	chart misreads and altimeter/transponder errors. 2) For the CTA, TMA and Airways, airspace base should be above minimum safe-altitude to prevent pilots running into marginal (referred as 'scud running' in the some objections) Visual Meteorological Conditions (VMC) without a clearance, or else converted to a CTR (i.e. with Surface (SFC as base).	calculated on civil aircraft climb performance and descent rates (using CCD and CDA operations to minimise fuel burn). 2) Any aircraft in an emergency situation can always expect immediate entry into the proposed CAS to afford required terrain clearance for inadvertent entry into Instrument Meteorological Conditions (IMC). The design allows for the maximum possible unfettered access for aircraft operating within Class G airspace with suitable weather conditions. HIAL has noted that the convention for CAS level increments are 500 ft; however, in the case of CTAs-2, 5 and 7 it has used intermediary 100 ft increments to raise the base of the CAS in that airspace as high as possible whilst 'containing' the Airport climb and descent procedures.
4	No need for such a large amount of CAS: 1) Inverness is a small regional airport with low air traffic volumes 2) The radar hours of operation do not fully coincide with the hours of operation of the Airport (mainly due to low volumes of air traffic and the cost of staffing the radar unit) The proposed airspace change cannot meet the objectives which have been put forward. At present IFR traffic often has to fly a full procedural arrival when the radar unit is not staffed. This will still be the case whether the airport has extra CAS or not – during a substantial part of the airports operating day any benefits of having CAS will be negated by the fact that aircraft will still have to fly long-winded procedural approaches in a non-radar environment at Inverness Airport.	1) HIAL feel that the Airport users should be afforded equal environmental and safety benefits as any other airport that is currently afforded CAS. 2) Inverness Airport aspires to provide radar services for the whole airport opening hours and is undertaking staffing review and recruitment to help achieve this target. CAS will assist with this by: • Enhancing the possibility of combined Aerodrome Control Instrument (ADI)/ Approach Control Surveillance (APS) rating for the Airport controllers to expedite the introduction of longer radar hours. • The spare capacity generated through CDA/CCD operations allows Inverness ATC to work towards its aspiration to provide Lower Airspace Radar Service (LARS) to a large area of the Highlands within which no service is currently available to enhance safety for all airspace users. It is anticipated that these services would be available 7 days a

		week, enhancing the military LARS service currently available Monday to Friday.
5	No need for such a massive new piece of CAS for so modest a number of commercial IFR movements. Much busier airports in the UK (e.g. London Gatwick) manage with less associated CAS.	The proposed CAS design provides the very minimum volume that is required. Whilst of similar dimensions to other airports it does not, unlike London Gatwick, Stansted or Luton benefit from being immediately adjacent to the London TMA that provides airways connectivity for these airports.
6	The proposal fails to meet the requirements of CAP 725: 1) It does not satisfy the requirements of all airspace users – gliders and transiting GA aircraft would be adversely impacted as they cannot be assured a timely transit under current airspace regulations (ref: CAA Safety Sense leaflet 27). 2) It does not ensure the most efficient use of the airspace as the overwhelming number of movements in the area are GA, rather than Inverness commercial traffic, the latter of which this proposal is seeking to protect. The sections of the proposal that report difficulties between HIAL and the UK military are best solved by coordination of management, not new airspace classifications.GA users may choose to avoid any	1) Inverness has shown that it embraces the concept of the flexible use of airspace through its current arrangements and agreements with local airspace users (including heliports, Danger Areas, adjacent Air Traffic Service Units (ATSU) and indeed glider access to current established controlled airspace). It is expected that these will be developed further for the benefit of all airspace users. Whilst access will be openly available to the proposed CAS, it will be in conjunction with allowing a level of safety above that which the Rules of the Air currently provide. Indeed, it is anticipated that many routine transit routes will benefit from reduced Radiotelephony (RTF) and coordination requests due to their being achievable without requiring access to CAS. 2) Of the 28,947 movements at Inverness during 2013, 14,425 of these were CAT. The total number attributable to GA is subject to an agreed definition, but is certainly not in the majority. Whilst agreements with the UK military have been made they do not extend to all military flying, whether UK or foreign or indeed to any civilian aircraft (see response to statement 2 above). Visiting

	new CAS, choosing instead to fly into areas of high terrain which in turn may lead to an increase in CFIT incidents in the area.	foreign military aircrews would receive great benefit most from defined Inverness CAS arrangements. The CAS proposal will actually increase airspace capacity for all users together with allowing more unhindered progress for many aircraft operating outside proposed CAS. GA should not routinely choose to avoid the proposed CAS and will be encouraged to contact Inverness ATC. It is anticipated that Inverness will in future provide a LARS to the local area, within radar coverage, increasing further safety for all users.
7	No need for such an extensive proposal – Inverness has managed adequately until now and even allowing for expansion. A moderate proposal would contain it. Concern that gliding and anything other than commercial flying has been dismissed as irrelevant or having little or no value. Freedoms currently enjoyed are eroded at the behest of commercial interests. The proposal infers safety but the driving force here is clearly profit.	This proposal is in response to analysis of local incidents and designed to combine the maximum safety and environmental benefits with the minimum restriction to airspace users. HIAL believes that the airspace immediately surrounding Inverness Airport is not being utilised either effectively or efficiently; airliners in particular are subject to regular avoiding action and increased track miles (increasing fuel burn and environmental impact) on Inverness Airport approach or departure. HIAL and Inverness Airport have consulted widely during the design process to minimise any potential impact. They have demonstrated their ability to integrate gliding activity within recent local airspace changes and will continue to do so. Aircraft operating outside CAS will have an increased safety level introduced through large fast aircraft configured to manoeuvre poorly being partitioned away from them. Inverness Airport ATC is also currently recruiting to increase its complement of ATC staff, with the aim of increasing radar service availability to all local airspace users. Inverness ATC has demonstrated its ability to integrate gliding activity through negotiated agreement within local airspace and will continue to do

	The proposal will limit the flight capabilities of glider pilots as they progress. They will no longer be able to fly in certain areas because safe access to them will be made less so because of the proposal.	so.
8	Concern regarding impact on low-level VFR traffic – limited radio coverage for ATC communications.	This is a factor of the local terrain and not the airspace. Through local Communications, Navigation & Surveillance (CNS) analysis the CAS proposal is not considered to have any significant effect. External boundaries to the proposed CAS allow Inverness ATC two-way communication prior to CAS entry.
9	Concerns that Remotely Piloted Aircraft Systems (RPAS) are increasingly being used as an inspection tool with wind turbines, both onshore and offshore. They are not equipped with transponders and during an inspection, they are unlikely to fly higher than the blade tip and beyond 30 m laterally (personal experience). Suggests an exemption be applied for RPAS when setting the TMZ, where the pilot must clear the proposed flight with the wind farms' control room.	This can be overcome by pre-planned liaison between the RPAS operator and Inverness ATC. Clearance for the RPAS to enter CAS or associated TMZ can be obtained by direct telephone calls on the 'day of operation' to supplement a pre-warned request for operation. Details for each wind farm operator can be included in a RPAS operators Memorandum of Understanding.
10	Concerns for pilots holding basic licenses (NPPL) and aircraft carrying minimal equipment. Concern regarding the dangers associated with a frequently used routing to Knockbain routing west of Inverness City. Concerns for difficulty, and some danger, experienced by pilots routing under CAS/seeking clearance (common local conditions such as local haar at Dalcross preclude holders of basic licenses from being granted or	The Airspace Classification of CTA-2 is changed to Class E+TMZ. This will mitigate the concern with regard to the base of CAS and complexity for transit VFR traffic equipped with a transponder and/or radio. Inverness Airport ATC, ahead of any airspace change proposal, is applying for a SSR Frequency Monitoring Code (conspicuity code) to both prevent and mitigate the consequences of airspace infringements. Pilots operating close to the peripheries of certain

	accepting transit clearance). Present protocols observed, with A/C making use of a basic information/radar service provided by Inverness Approach. Concerns following CAS implementation; Pilots not wishing to enter CAS, or not entitled to do so (licensing/weather) will stay under, or adjacent to, the CAS and will prefer to monitor Safetycom or Tain/Lossie in order to gain some traffic awareness. Inverness ATC will not be able to verify radar returns under or adjacent to CAS, especially as many GA aircraft do not carry mode C/S transponders. These aircraft may be denied a basic information service as a result. GA aircraft attempting to navigate to/from Knockbain and CAS will suffer a higher workload in monitoring position in areas of complex airspace restrictions while at the same time maintaining legal minimal separation from terrain. Such complexity will compromise effective look out from the cockpit and place over reliance on basic GPS readouts. The ACP will un-necessarily compromise GA safety at Knockbain. The recent provision of a good radar system at Dalcross and good co-operation between GA and ATC works very well.	CAS and monitoring the relevant frequency (but not requiring an Air Traffic Service) can select this local SSR conspicuity code and the Mode C pressure-altitude mode (if available) as specified to indicate they are monitoring the promulgated ATC frequency. This will allow Inverness ATC to attempt to establish contact with an aircraft which is displaying such a conspicuity code and which is considered to be infringing, or is likely to infringe, CAS in order to resolve an actual or potential infringement quickly and efficiently. Selection of such codes does not imply the provision of any form of Air Traffic Service and the use of such codes does not prevent a pilot from requesting an Air Traffic Service at any time should they subsequently decide they require one. The Provision of a basic information service does not depend of being transponder-equipped. A UK FIS Basic Service is an ATS provided for the purpose of giving advice and information useful for the safe and efficient conduct of flights. This may include weather information, changes of serviceability of facilities, conditions at aerodromes, general airspace activity information, and any other information likely to affect safety. The avoidance of other traffic is solely the pilot's responsibility. Basic Service relies on the pilot avoiding other traffic, unaided by controllers/FISOs. It is essential that a pilot receiving this ATS remains alert to the fact that, unlike a Traffic Service and a Deconfliction Service, the provider of a Basic Service is not required to monitor the flight. The Tripartite LoA with RAF Lossiemouth and Tain Range will obviate the need to use "Safetycom or Tain/Lossie" near Knockbain or over the Black Isle as Inverness ATC will have the most recent information. The CAA is conducting a review (CAA IN–2013/177) to determine

		that the procedures, dimensions, timings, and supporting references for R610 (Highlands Restricted Area) remain extant. It is hoped that this review, along with the Tripartite LoA, will reduce airspace complexity over the Black Isle and north o the Cromarty Firth.
11	MOD concerns relating to proposed dimensions of Class D CTA that, if implemented, would have a detrimental effect on the MOD's ongoing operations from RAF Lossiemouth, the relief landing ground at Kinloss and supporting Air Weapons Range (AWR) at Tain. In addition, it could impact on its ability to effectively host large scale multinational (Air) exercises within Scotland.	The encroachment is by approximately 1 NM which is viewed as a small imposition. Military and Moray Flying Club operations within the Kinloss MATZ are of greater concern. It is anticipated that these operations can be facilitated through a robust LoA with RAF Lossiemouth (the Tripartite LoA including Tain Range). Dialogue with the MOD to address the concerns is ongoing.
12	Concerns CTA-9 will have a severe impact on aerobatic flying out of Dornoch. CTA-2 will severely impact general handling flying out of Inverness and Dornoch. If CTA-3 entry is refused, Dornoch transiting aircraft forced to operate at a height lower than good airmanship dictates for the water crossing.	CTA-9 is being removed from the original design. The Airspace Classification of CTA-2 is changed to Class E+TMZ. This will mitigate the concern with regard to VFR general handling traffic equipped with a transponder and/or radio near Knockbain, Easter and Dornoch aerodromes. A LoA (as an annex to the Lossiemouth, Tain, Inverness Airport tripartite LoA) will give assurity of access to CTA-3 for VFR transit.
13	Concern on the introduction of CTA-8 to the already controversial CTA-6. Common to all 3 gliding clubs in the Highlands area (Aboyne (Deeside), Elgin (Highland) and Kingussie (Cairngorm); effectively all flights to the west and northwest will become impractical and access permanently lost to some of the best soaring in the UK. Proposed Solution: CTA-8 location modified to avoid populated areas/ National Park. Despite requests, no indication received of how the CAS will affect the GUSSIE box LoA between the above	A change of airspace classification for CTA-6 to Class E+TMZ will mitigate base of CAS and access concerns near Feshiebridge aerodrome for VFR operators with a transponder and/or radio. The initial request for information with regard to the GUSSI Box LoA was made prior to the final document had been endorsed and signed by all three partoes to the LoA (NATS, Inverness Airport ATC & the BGA). An amendment to the current 'GUSSI Box' NATS, Inverness & BGA LoA will further facilitate glider operations in CTA-

	gliding clubs, NATS & HIAL.	8. This 'proposal' that CTA-8's location is modified to avoid populated areas/National Park is impractical; current CAT operations in and out of Inverness Airport use that airspace to access airway N560.
14	Concern that entering Class D would be at the discretion of Inverness ATC (ATC find it difficult to accommodate the requirements of gliders).	Inverness has shown that it embraces the concept of the flexible use of airspace through its current arrangements and agreements with local airspace users (including glider access to current established CAS). It is expected that these will be developed further for the benefit of all airspace users. Whilst access will be openly available to the proposed CAS, it will be in conjunction with allowing a level of safety above that which the Rules of the Air currently provide. Indeed, it is anticipated that many routine transit routes will benefit from reduced RTF and coordination requests. The CAS proposal will actually increase airspace capacity for all users together with allowing more unhindered progress for many aircraft operating outside the proposed CAS. GA should not routinely choose to avoid the proposed CAS and will be encouraged to contact Inverness ATC.
15	Concern regarding CTA-4 and CTA-5 that they will act as a barrier to gliding activity below FL 95 (climbing above this level would require an oxygen system).	Lowering the ceiling of the proposed Class D volume to 5,500 ft with the provision of Class E+TMZ above this to FL 95 will mitigate to a large degree the VFR operator access concerns for those with a transponder and/or radio. Transponder equipped VFR aircraft would not be required to contact Inverness Airport ATC. This does not totally mitigate the impact on non-radio equipped gliders; however, it is anticipated that these operations can be facilitated through a robust LoA with Feshiebridge or the BGA.

16	Newtonmore and Kingussie have been omitted from Figures 1 and 3 and lie under or near area CTA-8 and will be significantly affected by the proposal. Concern regarding holding pattern above CTA-8 and resulting noise impact. Concern regarding impact on tranquillity at Cairngorm National Park. Concern CTA-8 overhead RSPB Insh Marsh Bird Sanctuary, a large sanctuary for nesting birds and forming the Spey Valley route for migrating geese. Suggested Solution: Move CTA-8 west.	Current CAT operations in and out of Inverness Airport use that airspace to access airway N560. The presence of CTA-8 will predominantly not effect traffic density or routing in that area.
17	Concern regarding proximity of proposed holding pattern over CTA-8 and its proximity to Feshiebridge airstrip.	The GUSSI Hold to which this comment refers already exists, and is operated, as an en-route hold.
18	Concern regarding CTA-8 and its proposed base of 6,000 ft amsl - only a small proportion of gliders are equipped with transponders and the VHF transmission range will be near or beyond its useful range (6,000 ft or less, around 30 miles and mountainous terrain), so most glider pilots will have difficulty contacting Inverness ATC for clearance to enter CTA-8. Consideration could be given to at least raising the base level in this area.	A change of airspace classification for CTA-6 to Class E+TMZ, and the current classification (Class E+TMZ) will mitigate base of CAS and access concerns near Feshiebridge aerodrome for VFR operators with a transponder and/or radio. An amendment to the current 'GUSSI Box' NATS, Inverness & BGA LoA will further facilitate glider operations in CTA-8. The base altitudes of CTAs-6 and 8 will be under continuous review.
19	Concern that impact on Highland Gliding Club at Easterton Airfield has not been considered. Argues that there are many more glider flights in the area then registered movements.	Easterton Airfield will be contacted through the IGAFG and BGA. It is anticipated that the maximum altitude of Inverness Class D is capped at 5,500 ft or FL 55. The airspace above would become Class E+TMZ. This does not totally mitigate the impact on non-radio equipped gliders; however, it is anticipated that these operations can be facilitated through a robust LoA with the BGA.
20	Concern regarding noise levels from commercial aircraft. Concern regarding the location of the holding pattern in the area between NESDI and GUSSI in CTA-8. Propose that in fact this circuit should	The GUSSI Hold to which this comment refers already exists, and is operated, as an en-route hold.

	be placed on the opposite side of the flight path i.e. on the north west side to remove any potential noise. Implications from residential areas.	
21	Concerns raised over low base of southern CAS, restricting the soaring area west of Aviemore and north of Kingussie. Suggests the control area down to 4,500 ft (about 3,700 ft above the airstrip) near Kingussie is completely unnecessary, restricting GA operations and infringing Cairngorm's soaring area to the west.	A change of airspace classification for CTA-6 to Class E+TMZ, and the current classification (Class E+TMZ) will mitigate base of CAS and access concerns near Aviemore and Kingussie for VFR operators with a transponder and/or radio. An amendment to the current 'GUSSI Box' NATS, Inverness & BGA LoA will further facilitate glider operations in CTA-8. The base altitudes of CTAs-6 and 8 will be under continuous review.
22	Page 20 of the Consultation Document suggestion that Class E + TMZ might require unique procedures for gliders but none have been suggested. Concern regarding base level of 5,000 ft being too low to go under safely when close to hills higher than 3,500 ft. Unless equipped with GPS difficult to recognise the new CTA boundaries as not linked with landmarks.	An amendment to the current 'GUSSI Box' NATS, Inverness & BGA LoA will further facilitate glider operations in CTAs-6 and 8. The base altitudes of CTAs-6 and 8 will be under regular review. There are few suitable landmarks in the area that would satisfy a CAS design without further increasing the volume.
23	Suggested alterations to reduce the risk of infringements/prevent risk of terrain collision: CTA base levels in 500 ft increments, starting above MSA - usually 2,000 ft AGL. Airspace should return to Class G when the aerodrome is closed.	HIAL has noted that the convention for CAS level increments are 500 ft; however, in the case of CTAs-2,5 and 7 it has used intermediary 100 ft increments to raise the base of the CAS in that airspace as high as possible whilst 'containing' the Airport climb and descent procedures. HIAL is considering the options for returning any proposed Inverness Airport CAS to Class G airspace when the Airport is closed.
24	Outraged at proposal to lower flight level to 6,000 ft to enable holding pattern above Kingussie and Newtonmore (not represented on Figure 1). Proposed Solution: airway moved 10 miles west to	Airway N560 and the GUSSI Hold already exist. Neither are part of this consultation and CAT already use these procedures and have

	prevent disruption to communities of Badenoch and Strathspey.	been for over two decades.
25	Concerns with proposed CAS and in terms of the holding pattern near Aviemore, with potential conflict to power/gliding traffic. Hold unjustified based on Inverness ATMs and in close proximity to one of the best UK gliding clubs. Proposed Solution: Hold positioned North of Inverness, limiting effects on airspace users and the Cairngorm Park.	The GUSSI Hold to which this comment refers already exists, and is operated, as an en-route hold. An amendment to the current 'GUSSI Box' NATS, Inverness & BGA LoA will facilitate glider operations in Class E+TMZ CTAs-6 and 8. The base altitudes of CTAs-6 and 8 will be under continuous review.
26	New European rules of the air are in prospect, increasing VFR minima for CAS access. This makes it unlikely given the local climate that VFR access to CAS could be granted regularly.	Lowering the ceiling of the proposed Class D volume to 5,500 ft with the provision of Class E+TMZ above this to FL 95 will mitigate to a large degree the VFR operator access concerns for those with a transponder and/or radio. Transponder equipped VFR aircraft would not be required to contact Inverness Airport ATC.
27	Concern that base of CTA only allow a 200 ft gap once SERA is taken into account. Concern that proposed IAPs have longer track miles than current arrival/departures, removing any fuel benefit. Most problems appear to stem from military traffic. Why not create an extended MATZ instead or have a more robust local agreement?	A change of airspace classification for CTA-2 to Class E+TMZ will mitigate base of CAS and access concerns in this airspace for VFR operators with a transponder and/or radio. The base altitude of CTA-2 will be under continuous review. On a few individual IAPs the track miles covered compared, where possible, to current 'norms' has increased by less than 5 NM. However, as a whole the introduction of the proposed IAPs, CDAs and CCDs will reduce fuel use and consequently harmful emissions. The concept of an extended MATZ is only available to Military aerodromes. An extension to the Kinloss/Lossiemouth combined MATZ would not satisfy the requirements of HIAL for Inverness Airport. Such an extension would have to be proposed by the MOD. A number of iterations of the Lossiemouth/Inverness Airport local arrangements have been made that have not wholly satisfied the

		MOD requirements for Tain Range access as well as Lossiemouth operations.
28	Proposal regarding the configuration of the proposed CTR and CTAs when VFR traffic in the CTR are required to operate under an SVFR clearance: Under SERA.5005, SVFR is required if the cloud base is lower than 1,500 ft or the ground visibility is less than 5 km. Having flown light aircraft based at Inverness for more than 20 years, I am conscious that quite frequently, ground visibility at the airport may be very poor due to haar when above 1,000 to 1,500 ft conditions are much better. Alternatively, a low but thin layer of stratus may have a base lower than 1,500 ft but may only be 500 ft thick, again with better conditions above. In the present proposed configuration, the CTR at Inverness extends from the surface to FL 95. If conditions close to the ground are such that SVFR is required, this will presumably apply to the whole of the CTR, i.e. right up to FL 95, when in fact conditions are VFR from quite a low level up. SVFR will give particular difficulties to pilots flying on national PPLs or NPPLs. In both cases, a visibility restriction of not less than 10 km under SVFR is attached to the licence, unless in the case of a PPL the pilot also holds and IMC rating. Thus a pilot with a national licence wishing to transit the CTR at a level at which normal Class D VMC conditions obtain (>5 km visibility, 1,500 m horizontally and 1,000 ft vertically clear of cloud, or in accordance with ORS4-1084, >5 km visibility, clear of cloud and with the surface in sight below 3,000 ft) will not be able to accept an SVFR clearance if the flight visibility is less than 10 km. SVFR clearances are also likely to add to ATC workload, since in	Lowering the ceiling of the proposed Class D volume to 5,500 ft with the provision of Class E+TMZ above this to FL 95 will mitigate to a large degree the VFR glider operator with a transponder and/or radio. Classification of CTAs-2, 8 as Class E+TMZ and the change of airspace classification for CTA-6 to Class E+TMZ with all Inverness Airport CAS above 5,500 ft is being discussed closely with the MoD, LAA, GAA and the BGA. This Classification is more consistent with the Classification of the Airport connecting air route structure and allows greater VFR operational flexibility. Lowering the ceiling of the CTR to a ceiling of 2, 000 ft is being discussed closely with the LAA, GAA and the BGA through the Inverness GA Focus Group (IGAFG) in mitigating the concern regarding VFR transits of the airspace above Inverness Airport and the future potential impact of the Standard European Rules of the Air (SERA). This would also reduce the requirement for SVFR clearances for aircraft wishing to VFR transit the Inverness Airport CAS and would help pilots who continue to fly with national PPLs or NPPLs taking advantage of the CAA ORS4-1084 “clear of cloud and with the surface in sight” derogation from SERA below 3,000 ft amsl.

	Class D airspace separation has to be provided between SVFR flights and between SVFR and IFR traffic, but for VFR traffic, only traffic information has to be provided to IFR traffic and then only if the VFR traffic is conflicting. Since SVFR is not applicable to a CTA, I suggest that the proposed Class D CTR extending from the surface to FL 95 should be replaced by two volumes of Class D controlled airspace, a) a CTR extending from the surface to 2,000 ft amsl and b) a CTA extending from 2,000 ft to FL 95. This would reduce the requirement for SVFR clearances for aircraft wishing to transit the Inverness controlled airspace under VFR and would help pilots who continue to fly with national PPLs or NPPLs. The boundary between CTR and CTA at 2,000 ft amsl would enable VFR traffic in suitable conditions to continue to take advantage of the CAA ORS4-1084 "clear of cloud and with the surface in sight" derogation from SERA below 3,000 ft amsl. There would be no loss of control of traffic as both CTR and CTA would continue to be Class D airspace. I note that the CTRs and CTAs at Southampton and Bournemouth have both adopted this configuration, with Class D CTRs extending up to 2,000 ft amsl with a Class D CTA from 2,000 ft up.	
29	Kincraig & Vicinity Community Council are concerned that the proposed extension of controlled airspace at Inverness will place aircraft in a holding pattern near to our village between Kingussie & Aviemore (not marked on your map, although some smaller more outlying villages are) and some 1,500 ft above Cairngorm Mountain in our National Park. We are a community heavily reliant on tourism for our economy, and the presence and associated noise of	Airway N560 and the GUSSI Hold already exist. Neither are part of this consultation and CAT already use these procedures and have been for over two decades. This 'proposal' that CTA-8's location is modified to avoid populated areas/National Park is impractical; current CAT operations in and out of Inverness Airport use that airspace to access airway N560.

	airliners circling above us can only be detrimental to this, as our visitors greatly prize the wildness of the area and the peace that goes with it. Proposal: Displace proposed airspace some 8-10 miles to the west over the lower and uninhabited Monadhliath Mountains, making the sight and sound of your jet airliners less intrusive in the centres of population, both in the Spey Valley and the Great Glen.	
30	The proposed airspace will extend significantly into wave-soaring and cross-country routes used frequently by the gliding community. Gliding relies upon such routes and establishing a controlled airspace in this zone will negatively affect those who are wishing to take advantage of Scotland's great soaring conditions.	Lowering the ceiling of the proposed Class D volume to 5,500 ft with the provision of Class E+TMZ above this to FL 95 will mitigate to a large degree the VFR glider operator with a transponder and/or radio. An amendment to the current 'GUSSI Box' NATS, Inverness & BGA LoA will facilitate glider operations in Class E+TMZ CTAs-6 and 8.
31	No cost projections in the proposal - creation and management of controlled airspace always results in an increased cost to an operation. There will be a requirement to provide a radar service during operational hours of such airspace, and that is a significant increase than it is available at present. This will require extra staffing, and associated training. The effect of this at other airfields introducing CAS is invariably a noticeable reduction in GA, which in turn increases the costs to CAT, and again onto passengers. Furthermore, the reference to the air traffic manual in 3.4 implies that commercial traffic will only route through CAS. As Inverness would be entirely within CAS if it were to be established, then many commercial aircraft will be required to take much longer routings than they do at present, as they are able to fly direct on the basis that they will leave CAS anyway.	HIAL is prepared to accept the cost, in terms of air traffic provision, for the creation and management of CAS. HIAL is planning for extended radar service provision to cover the whole period of any Inverness Airport CAS activation and recruiting is currently taking place to augment the air traffic controller cadre at Inverness Airport ATC. Procedures and processes to reduce any detrimental impact, in terms of CAS access, for GA operators is being explored with the Highland Strut, Light Aircraft Association (LAA), General Aviation Alliance (GAA)and the British Gliding Association (BGA). Direct routing, to and from the east by commercial airline operators, not initially using the connected air route structure, will not be inhibited by Inverness Airport where practicable and

	The route between Inverness and Amsterdam, for example, is shortened by 60+ miles each way on a majority of times it is flown on this basis. Not doing this will increase fuel burn and emissions by a large amount which has clearly not been considered within the proposal. Most of the projected routes in the document are an increase in track mileage from those that are typically used at present. The difference between the inbound and outbound routes also means that there is wasted airspace whichever runway is in use as the edges of the airspace appear to be dictated by the inbound tracks, whereas the outbounds are on much tighter routes. The suggestions will not provide sufficient separation to permit procedural crossover between inbound and outbound levels, so, as it will be a radar solution if there is conflicting traffic, the volumes of airspace are unnecessary as aircraft can be vectored closer to the edge than when operating procedurally. As the connecting routes into this airspace are all class E+TMZ, it seems completely pointless to have extra protection (of class D) in the vicinity of the airfield. The military, as well as other airspace users, can and will be able to operate just outside of the zone, including over the top, and this will cause more problems than are solved. An RMZ would be a much better approach to use, as it creates a known traffic environment without the cost and efficiency restrictions. Further, it would likely be more successful than other RMZ's have been as the nature of the terrain around Inverness means that airspace users are significantly more likely be radio equipped anyway.	efficient. Most of the projected routes, to connect to the air route structure, do not include an increase in track miles compared to present practice. However, it is acknowledged that the external boundaries of the projected CAS are predominantly defined by protection to the inbound routes. The current design of the procedures is being refined to ensure that separation is provided between active procedures. HIAL acknowledges that Class D might be too 'restrictive' a classification and therefore not suitable to some areas of the projected Inverness Airport CAS. Classification of CTAs-2, 8 as Class E+TMZ and the change of airspace classification for CTA-6 to Class E+TMZ with all Inverness Airport CAS above 5,500 ft is being discussed closely with the MoD, LAA, GAA and the BGA. This Classification is more consistent with the Classification of the Airport connecting air route structure and allows greater VFR operational flexibility. HIAL note that an RMZ is not at present a recognised permanent airspace construct for regional airports but also considers that the RMZ concept would provide insufficient protection to scheduled commercial air transport procedures.
32	Proposal fails to demonstrate safety improvements. The CTR would encroach well over the Southern shores of the Black Isle and would be just South of Culbokie (Microlight) Airfield. This would push aircraft, wishing to fly south, to the west of Inverness where the base level of CTA1 and CTA7 is in some areas almost at ground level	The CTR does not encroach well over the southern shores of the Black Isle. A change of airspace classification for CTA-2 to Class E+TMZ will mitigate base of CAS and access concerns in this airspace for VFR operators, from/to Easter and Dornoch airfields, with a transponder and/or radio. The base altitude of CTA-2 will be

	already. If pushed to the East then it would either involve a long water crossing below 1,500' or an even longer water crossing out with CTA3. Also to the East the CTA3 encroaches with the Kinloss MATZ creating further problems for a non-radio equipped aircraft.	under continuous review. Lowering the ceiling of the proposed Class D volume to 5,500 ft with the provision of Class E+TMZ above this to FL 95 will mitigate to a large degree the VFR operator transit/access concerns for those with a transponder and/or radio. Transponder equipped VFR aircraft would not be required to contact Inverness Airport ATC.
33	An individual supports an RMZ (together with recent conversion of advisory routes to E+TMZ airspace providing radar visibility) as a more proportionate proposal (Option 3) and in line with what has been done at other comparable UK airports.	HIAL note that an RMZ is not at present a recognised permanent airspace construct for regional airports but also considers that the RMZ concept would provide insufficient protection to scheduled commercial air transport procedures.

A4 The Previously Consulted Inverness Airport CAS

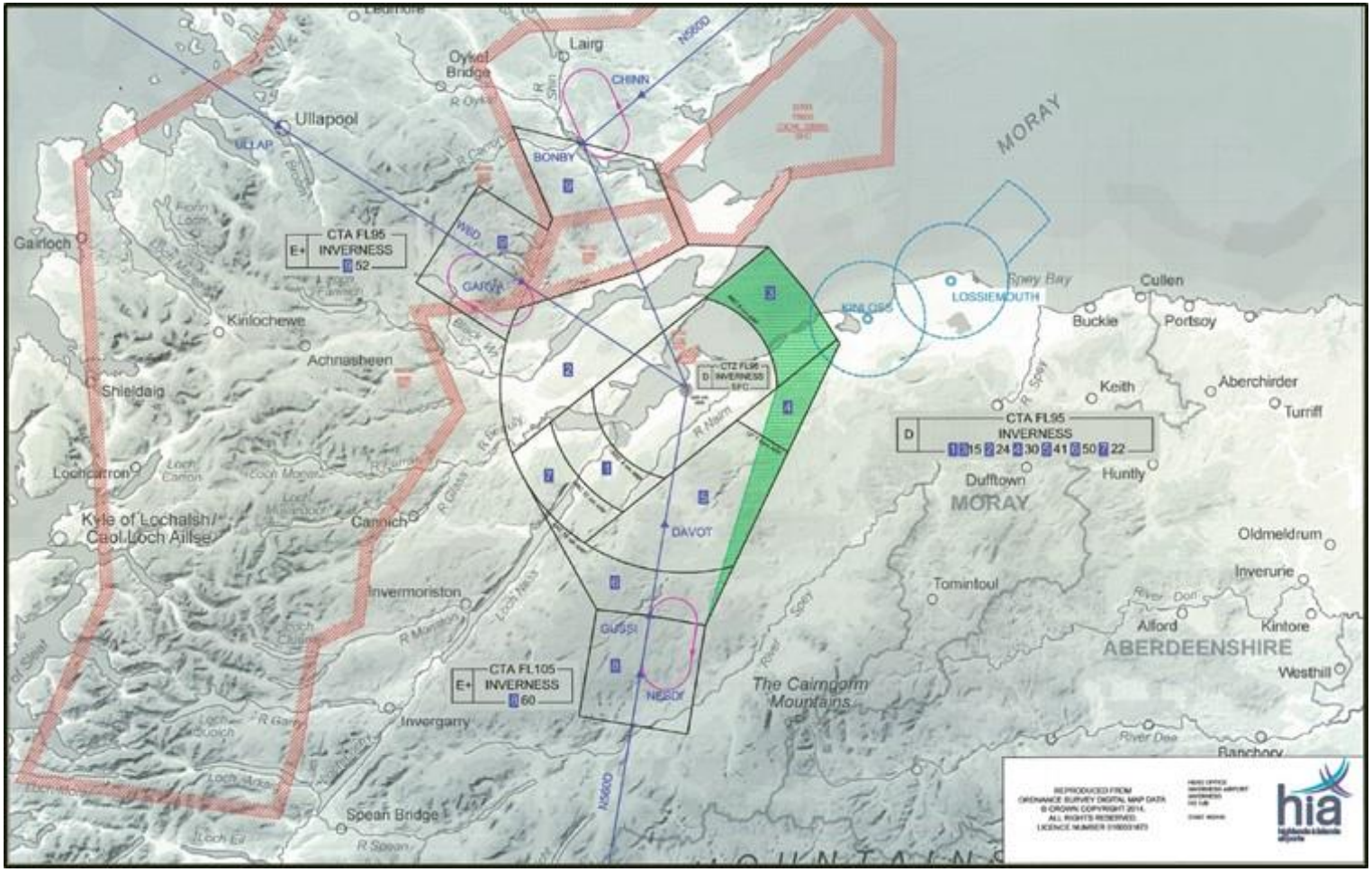

Figure 4 The Consulted Inverness Airport CTR and CTAs. *Ordnance Survey Digital Data © Crown Copyright 2014, Licence 0100031673*