A Review of Air Services In the Highlands & Islands

For HITRANS and ZetTrans

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DRAFT REPORT

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A. Executive Summary

Objective of Study

The two Regional Transport Partnerships covering the Highlands and Islands Region requested a study to assist them in putting forward proposals for initiatives, policy priorities and capital expenditure on aviation for the next round of Scottish Government spending, covering the decade 2013 to 2022.

The report would complement others covering alternative transport modes to enable the RTPs to seek to obtain maximum value overall from the limited funds expected to be made available for transport.

The five objectives of the Review were:

- to study the needs for air services and associated infrastructure through to 2022
- to provide input into the Scottish Government's next spending review
- to see how changes since 2003 have met National and Regional Transport Strategies
- to review options for improving air service provision; and
- to recommend strategy changes, interventions and co-ordinated actions

Approach to Study

Having set out the background to the report in **Chapter B**, the study starts (in **Chapter C**) by examining the relevant National and Regional transport strategy documents in order to determine a list of agreed priorities, both for transport as a whole, and specifically for aviation. The main documents analysed were:

- The National Planning Framework Scotland 2, published in June 2009
- Scotland's National Transport Strategy, December 2006
- HITRANS – Regional Transport Strategy for the Highlands and Islands, March 2007; and
- ZetTrans: Shetland Transport Strategy, April 2008

Thirteen objectives were determined, and the full list can be seen in Section 6 of Chapter C of the study. The three key objectives for aviation were listed as:

1. Help to reverse the trend of population decline in some of the more peripheral parts of the Highlands and Islands – the 'fragile' areas as identified by HIE - by improving accessibility and affordability
2. Help to reduce economic disparities within the region, by ensuring all areas have reasonable access to national centres and assets
3. Help to maximise sustainable economic growth throughout the region, by ensuring that any potential employment opportunity is provided with the necessary air services

Chapter D analyses the recent history of civil aviation in the region, looking at data for the period 2000 to 2008 for:

- airport passengers, cargo and movements

- airport facilities and opening hours
- airlines
- aircraft
- scheduled routes
- air fares, and
- a sample of schedules on key routes

In addition, developments in revenue support for routes have been summarised, and developments in the economy and in environmental concerns have been noted.

Chapter E analyses the very broad range of problems and opportunities for civil aviation in the region, based on detailed background knowledge of the region, and supplemented by detailed questionnaires sent to a large number of involved stakeholders of whom 40 replied. In addition, day-long consultations were held in each of the five local councils, at which the views of more than 100 residents, councillors and officials were carefully noted.

Chapter F distilled this large number of comments into seven groups of problems, covering:

- aircraft, including new types and ownership options
- airports, including possible re-structuring of their management and organisation
- airlines, including the possibilities of introducing competition
- routes, frequencies and capacities, including possibilities for additional PSO routes
- fares, rates and charges, and
- competition from ferries

For each major problem identified, a range of possible options was studied, including a ‘do-nothing’ scenario; and detailed recommendations made for each one.

Chapter G took these problems and recommended solutions and grouped them into three categories, depending upon the type of recommendation made. The three groupings are:

- solutions requiring capital expenditure
- solutions requiring significant on-going revenue support, and
- solutions which require facilitation from the Scottish Government either to reduce costs or to develop opportunities

Summary of Recommendations

It is important to recognise that, through its various arms, the Scottish Government is the most important paymaster for civil aviation in the Highlands and Islands. These payments are made in the form of:

- the purchase of tickets by national and local councillors, officers and staff, and those of agencies such as the NHS and education authorities
- by way of subsidies to HIAL, averaging £28 m a year
- by grants to local councils to assist with the provision of local airstrips
- providing subsidies to airlines in the form of route development funds and PSO grants
- providing subsidies direct to travellers in the form of the Air Discount Scheme

As a result, it is reasonable to assume that a policy priority of the Scottish Government is to obtain best value for such investments.

The main recommendations for future investment in aviation are listed below, and in the main report have been categorised in terms of 'importance', 'cost' and 'urgency of implementation'. They have not been placed in any order of priority.

Solutions requiring capital expenditure

- continuing support given to HIAL for major repairs and minor upgrades to capital infrastructure
- provision of cargo screening equipment at major HIAL airports
- provision of full-length taxiway at Inverness Airport
- construction of 800 metre runway on Barra island
- extension of runway at Skye-Broadford to 1300 metres
- provision of pontoons for water aerodromes on the north west coast
- provision of safety and security infrastructure for water aerodromes
- provision of lighting at up to six island airstrips
- extension of up to ten island airstrips to 600 metres
- possible re-instatement of airstrips at Unst and Hoy
- acquisition of a fleet of 9-seat Caravan aircraft for tendering on PSO routes and available for Air Ambulance operations

Solutions requiring on-going revenue support

- covering of extra costs of lengthened opening hours at various airports
- provision of financial support for an Inverness – Amsterdam PSO
- extension of the ADS scheme to cover all passengers on affected routes

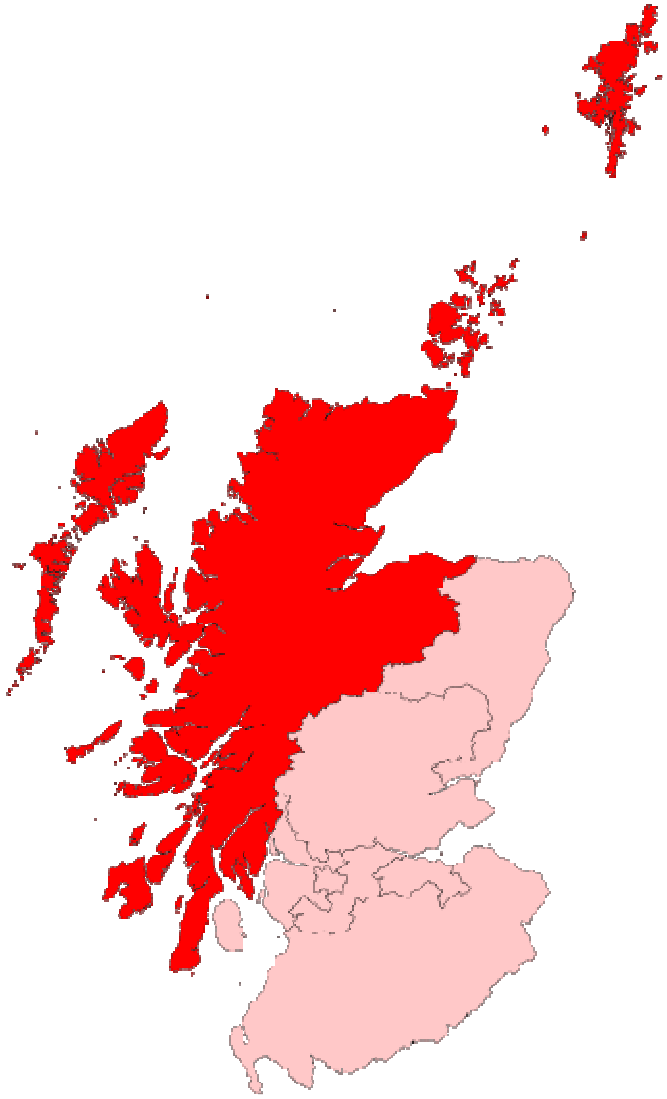
Solutions which require facilitation from the Scottish Government

- investigating options for re-structuring the management and organisation of all public airports and airstrips in the region
- engaging long term with the CAA and NASP concerning fit-for-purpose regulations suitable for the Highlands and Islands
- working with airlines and the CAA to permit scheduled air services by single-engined turbine aircraft
- assuming overall responsibility for all PSOs in the region, to encourage multi-council applications for routes
- engaging with the DfT to ensure slots for Inverness and Aberdeen routes are made available on any third runway at Heathrow
- engaging with the MoD to relax regulations at Northolt Airfield for potential flights from Inverness
- engaging with the Treasury to exempt all Scottish internal flights from APD
- engaging with the BAA to protect the use of the cross runway at Edinburgh Airport for use by turbo-prop aircraft
- seeking ways of introducing competition into the aviation fuel market; or alternatively subsidising fuel supplies at airports in the region
- engaging with aircraft manufacturers to establish an assembly line for small aircraft in Scotland

These recommendations range in ease of implementation from changes in policy to substantial revenue or capital investment. Such matters will require political resolution.

B. Introduction

HITRANS and ZetTrans have requested this study to consider the needs for air service and associated infrastructure development over the next 12 years to 2022, and to provide input into the Scottish Government's next spending review which will consider the period from 2013 onwards. This time period also fits with the current Strategic Transport Projects Review and the Scottish Ferries Review.



The study area: Highlands and Islands Region

The study will assist the two transport partnerships to compare the needs of aviation in their regions with the needs of other transport modes, and provide information and assistance to them in drawing up a comprehensive budget request covering all modes.

The study looks at all aspects of air services in the region, covering airports, airlines, aircraft types and routes to determine which aspects are in most need of financial support if the objectives for growth throughout the Highlands and Islands are to be met. Each area has its own specific needs, and much of the report deals with each council area separately.

Section C of the report examines the strategic objectives for the region as already laid down by the Scottish Government, HITRANS and ZetTrans, and draws up a list of specified objectives for air services in the region.

In Section D, the study examines the recent history of airports and air services in the region, and comments on major changes which have already taken place and are forecast to change.

Section E examines the many problems faced by aviation in the region, and as amplified by public consultation. Detailed bespoke questionnaires were filled in by around 40 selected stakeholders, and five meetings were held throughout the region, where the views of some 100 stakeholders were noted and considered.

Section F groups these problems, and examines a range of options for resolving them. Some of these proposed solutions would be expensive in either capital or revenue support, while others would require little financial support, but effort at Government level if they are to be achieved. Recommendations are made as to the optimum way of resolving each problem.

Section G summarises these various recommendations, and scores each according to the need, the cost and the urgency. They are not put into an order of priority, but the information is laid out in such a way that HITRANS and ZetTrans will each be able to determine their own priorities for the Government's spending review.

C. Objectives for Aviation in the Highlands and Islands

1. Introduction

Four important documents have been published in recent years which lay out the national objectives for Scotland and the regional objectives for the Highlands and Islands region, including objectives for transport infrastructure, and which between them provide the background against which specific objectives for the aviation industry in the region can be set.

The four documents, which are summarised below, are:

- The National Planning Framework Scotland 2 (NPF2), published in June 2009
- Scotland's National Transport Strategy, December 2006
- HITRANS – Regional Transport Strategy for the Highlands and Islands, March 2007; and
- ZetTrans: Shetland Transport Strategy, April 2008

Following an analysis of these documents, a preliminary list of potential objectives for aviation in the Highlands and Islands has been drawn up. It is recognised that the NPF2 pre-disposition is to favour surface transport modes, rail in particular. It is hoped that that policy position will recognise the unique nature of the geography and distribution of communities within the Highlands and Islands and the role and contribution that air transport alone can make.

2. National Planning Framework Scotland 2 (NPF2), June 2009

This is the most recent of the four documents. It is built upon the original NPF of 2004 and takes into account the conclusions of the 2006 National Transport Strategy (discussed below), bringing together all the other individual strands of national strategy to formulate an overall direction for the nation and for each of its constituent regions. It is concerned with how the Government wants Scotland to develop over the next 20 to 25 years and where things need to happen to make that possible.

The Framework makes clear that the central purpose of the Scottish Government is to increase sustainable economic growth. The Government's Economic Strategy (GES) is to ensure that financial and other resources are brought together to ensure that policy development and spending programmes are focused on achieving that purpose, and on the challenging targets the Government has set. The NPF2 takes forward the regional aspects of the GES, to ensure that each part of the country is able to play to its strengths in building a Scotland that is 'wealthier and fairer, smarter and greener, healthier, safer and stronger'.

The Government is committed to increasing wealth throughout Scotland and to reducing regional disparities. It has set itself a target of narrowing the gap between Scotland's best and worst performing regions by 2017. The Government recognises that reducing regional disparities will involve targeted investment in connectivity.

In respect of all of Scotland's rural economies, the NPF2 seeks a high quality environment and a strong cultural identity, to help promote sustainable growth, economic diversification and community development. Key attributes of a competitive rural area are expected to include a diverse employment base and high activity rates; good public and private services; and good physical connectivity (transport).

In specific terms, the NPF2 lays out a planning framework for all aspects of life in the Highlands and Islands region, and also outlines the part that transport, in all its forms,

can play in helping to bring that strategy to fruition. Although the concentration is more upon transport infrastructure rather than on specific operator services, the Framework recognises the importance of schedules, frequency and affordability.

Some parts of the Highlands and Islands have improved dramatically in recent years, with many areas experiencing a growth in population for the first time in generations. Substantial growth is taking place in Inverness and the Inner Moray Firth, but population is also increasing in Skye and Wester Ross, Orkney Mainland, Argyll, Moray and Lochaber. However, other more peripheral areas are still experiencing population decline.

Highlands and Islands Enterprise (HIE) considers that a realistic population target for the Highlands and Islands by 2030 is some 500,000, an increase of around 15% on the population in 2005.

Overall, the region has an average GDP which is less than 80% of the Scottish average, although it is benefiting from EU Convergence funding under a provision for regions with a per capita GDP less than 75% of the EU-15 average.

In Paragraph 53 of the NPF2 Report, the Government sets out twelve main elements of the national spatial strategy to 2030, of which six are particularly relevant to the transport needs of the Highlands and Islands. These are to:

- *support strong, sustainable growth for the benefit of all parts of Scotland;*
- *support sustainable growth in the rural economy;*
- *expand opportunities for communities and businesses by promoting environmental quality and good connectivity;*
- *promote development which helps to improve health, regenerate communities and enable disadvantaged communities to access opportunities;*
- *strengthen links with the rest of the world; and*
- *promote more sustainable patterns of travel, transport and land use*

Key locations which have been identified as offering substantial strategic growth potential throughout Scotland include the Inverness to Nairn Corridor and the Pentland Firth. The NPF2 recognises that the economic success of these areas depends on good links to the rest of Scotland and the wider world. It is therefore essential that investment in new or improved infrastructure reflects economic development priorities and the need to support sustainable growth

For the rural areas, the Government recognises that energy is a major resource and is committed to realising the power generating potential of all renewable sources of energy. Much of the longer-term potential is likely to lie with new technologies such as wave and tidal power, biomass and offshore wind. New high quality jobs are being created through developments such as the marine energy research centre on Orkney. Community-based renewable energy projects will be expected to make an important contribution to sustainable development in rural Scotland, particularly on the islands and in remoter mainland areas.

The NFP2 recognises that the competitiveness of each region will depend on adequate investment in infrastructure. Improvements in infrastructure will be needed to strengthen international links, tackle congestion, reduce journey times between the cities and support the rural communities. However, only two of fourteen identified national projects lie north or west of the Central Belt – these are the development of Scapa Flow as an intercontinental container transhipment facility; and some major electricity grid improvements, notably:

- *upgrading the existing Beauly – Dounreay overhead transmission line;*

- *reinforcing the Beauly – Keith overhead transmission line;*
- *reinforcing the sub-sea cable link between Orkney and the Scottish mainland; and*
- *providing new sub-sea cable links for the Outer Hebrides and the Shetland Islands*

None of the planned national projects improves the transport infrastructure for passengers in the Highlands and Islands – whether by air, sea or land - although the Government will promote enhancements for the airports at Aberdeen, Edinburgh, Glasgow and Prestwick that will bring benefits to air freight and passengers travelling to and from the Highlands and Islands.

Given Scotland's geographical position, the Framework recognises that good air links are vital for international connectivity and competitiveness. Air links to their countries of origin are important to people from other parts of Europe now contributing to the Scottish economy, and good international connectivity will be a crucial factor in encouraging more people to come to live and work in Scotland. It accepts that this will make it more difficult for Scotland to meet its climate change objectives, but the environmental aspects regularly conflict with other objectives to improve the overall economy.

The impact of more rapid train services between the Central Belt and England may abstract some air traffic from Glasgow and Edinburgh, but are unlikely to affect demand for air travel from Aberdeen, Inverness or elsewhere in the Highlands and Islands.

Within the region, NPF2 accepts that connectivity is a particular challenge for island communities. It recognises the vital importance of ferry services in supporting island and other rural communities, and the Scottish Government is undertaking a comprehensive review of ferries to identify what improvements should be made to meet future needs. It has also commissioned a study to establish the most effective and sustainable structure for a Road Equivalent Tariff (RET) scheme, based on the evaluation of a pilot project for services to and from the Outer Hebrides, Coll and Tiree. It has not instituted similar studies for the improvements required for similar air services, and this study seeks to provide some of the evidence needed to justify further investment in aviation in the area.

Paragraphs 211 to 222 of the NPF2 Report analyse the specific problems and opportunities of sub-regions within the Highlands and Islands.

Inverness and its local area is expected to become a major development zone in the coming years. It is likely to develop its role as the Highland capital, broaden its economic base, improve its connections to Scotland's other cities and the rest of the world, and attract a wider range of high quality jobs. Its Centre for Health Science is contributing to Scotland's strength in biomedical research. Although plans to improve the road and rail links to Aberdeen and the Central Belt are outlined, no mention is made of how its connections to the rest of the world are to be improved.

The energy industry is expected to bring further developments to the Pentland and Cromarty Firths, while Shetland and the Outer Hebrides are expected to benefit from any oil and gas developments in the north east Atlantic. The prospects for Scapa Flow are being examined.

However, targeted support will continue to be needed in areas such as north Sutherland and some of the islands which are still experiencing decline, and in parts of Moray and Caithness where more jobs need to be created. The challenge in the remoter areas is to replicate the successes already achieved in places like Skye and Mull. Through the fragile areas programme, Highlands and Islands Enterprise and

local authorities are giving particular attention to the needs of the Outer Hebrides, North Skye, the outlying islands of Orkney and Shetland, the Argyll islands and the remote west mainland. Both sea and air transport have the ability to help solve these problems.

There are few references to inbound tourism in the document, but this is one area where the economy of these remote areas can be enhanced with improved accessibility. There are large international markets for Celtic culture, built heritage and environmental tourism, but to attract such business will demand co-ordinated action focused on measures to diversify and grow the economy, create high value jobs, retain and attract population, and improve connectivity and communications.

3. Scotland's National Transport Strategy, December 2006

The Foreword to the Report, by the then Transport Minister Tavish Scott, summarised the objectives of the National Transport Strategy in the first two paragraphs:

> *Growing Scotland's economy is the first priority of this Government. Scotland aspires to be a world-class country where people want to live, business can thrive and visitors are keen to return. We want Scotland to be a strong player in the global economic market, increasingly productive and ready to respond to new challenges, with thriving cities and rural economies.*
>
> *Transport is an essential part of economic activity. Infrastructure – roads, rail, airports and ports – and the businesses that use these assets – are all vital components of Scotland's economy. Transport has a significant and positive contribution to make to economic growth, and to the prosperity and quality of life of Scottish people*.

The detailed objectives developed in the Report drew very heavily on the five high level objectives set in the Scottish Government's 2004 Transport White Paper, 'Scotland's Transport Future', which were to:

- *Promote economic growth by building, enhancing, managing and maintaining transport services, infrastructure and networks to maximise their efficiency*
- *Promote social inclusion by connecting remote and disadvantaged communities and increasing the accessibility of the transport network*
- *Protect our environment and improve health by building and investing in public transport and other types of efficient and sustainable transport which minimise emissions and consumption of resources and energy*
- *Improve safety of journeys by reducing accidents and enhancing the personal safety of pedestrians, drivers, passengers and staff, and*
- *Improve integration by making journey planning and ticketing easier and working to ensure smooth connection between these different forms of transport*

The Report recognised that there are potential tensions between these high level objectives, notably between the economy and the environment. The Government has therefore developed a Sustainable Development Strategy, which brings together the economy, the environment and social inclusion. To that end, the National Transport Strategy determined upon three strategic outcomes that would need to be focussed upon:

- *Improve journey times and connections, to tackle congestion and the lack of integration and connections in transport which impact on our high level objectives for economic growth, social inclusion, integration and safety*
- *Reduce emissions, to tackle the issues of climate change, air quality and health improvement which impact on our high level objective for protecting the environment and improving health, and*
- *Improve quality, accessibility and affordability, to give people a choice of public transport, where availability means better quality transport services and value for money or an alternative to the car*

In respect of the first required strategic outcome, in aviation terms, The National Transport Strategy would continue to concentrate on enhancing connections with Scotland's global markets by air, through the use of the (then available) Route Development Fund, which would also remain available for increasing the range of domestic air services from Inverness and Stornoway. The intention is to continue to support an air network which is viable in the long-term, and which meets the needs of Scottish business, encourages inward investment and provides easier access to Scotland for tourists.

In referring to the UK Government's White Paper on Aviation (December 2003), the Scottish Government is in broad agreement with its conclusions, which included the possibility of runway developments at Inverness, and a possible need for enhancements at some of the smaller airports in the Highlands and Islands.

In regard to aviation emissions, the sole reference is that the Scottish Government will continue to support efforts at the UK level to promote an emissions trading scheme that includes aviation (and surface road transport).

With respect to quality, accessibility and affordability:

> *Scotland aspires to be a society which is socially inclusive, just and where everyone has the opportunity to contribute and participate in that society. That means ensuring that people have the opportunity to access education, training and employment as well as key services such as health, cultural, sporting and leisure activities. Accessing services can be a challenge if you are one of the many people who live in remote or rural areas of Scotland.*

To those ends, the Scottish Government remains committed to sustaining the viability of remote and fragile communities through ensuring access to lifeline air (and ferry) services. It provides direct funding for the three Public Service Obligation (PSO) routes from Glasgow to Campbeltown, Tiree and Barra, and direct funding to Highlands and Islands Airports (HIAL) for the maintenance and operation of its (then) ten airports, and to assist with the development of new routes in conjunction with airlines.

In addition, it aimed to improve access for remote communities through the introduction of the Air Discount Scheme in May 2006 for an initial period through to March 2008, although it has subsequently been extended. It offers a 40% discount on the 'core' air fare for residents of all island groups (excluding Barra and Tiree) plus Caithness and Sutherland for air travel to the four key airports of Aberdeen, Edinburgh, Glasgow and Inverness.

The Scottish Government is committed to its current capital investment plan through to 2012. As for future periods, the National Transport Strategy will inform the Strategic Transport Projects Review (STPR) which, in turn will determine the next generation of major land-based transport projects, predominantly road and rail. This reported in December 2008.

In this process, regional transport partnerships (including HITRANS and ZetTrans) and local authorities will have a particularly important role to play, ensuring that regional transport strategies are in line with and support the National Transport Strategy, while meeting regional needs and all statutory requirements. The regional strategies were due to be published following the publication of this NTS Report.

The findings of this National Transport Strategy have been incorporated into the NFP2 Report discussed above.

4. HITRANS – Regional Transport Strategy for the Highlands and Islands, March 2007

The Transport Scotland Act 2005 requires each of the seven Scottish Regional Transport Partnerships (including HITRANS and ZetTrans) to prepare Transport Strategies for their regions that will:

- *Enhance economic well-being*
- *Promote safety, social inclusion and equal opportunity*
- *Plan for a sustainable transport system, and*
- *Integrate across boundaries with other Partnerships*

In preparation for the Report, comprehensive workshop discussions were held between HITRANS and key stakeholders, from which the key issue emerged: the contribution that a modern transport system can make to the competitiveness of business and the enhancement of the region's viability; and the concern that much of the current transport system is not adequate to meet that challenge.

Economically, Gross Value Added (GVA) for the HITRANS region is only at 80% of the average value for Scotland – improvements to the transport network are considered vital if this gap is to be reduced.

The primary objective for the Strategy is therefore to improve the interconnectivity of the whole region to strategic services and destinations in order to enable the region to compete and support growth.

The supporting objectives are to: enable people to participate in everyday life; to improve the safety and security of travel; to improve people's health; and to manage any environmental impacts.

The Report identified ten 'horizontal' themes which apply to all parts of the region, covering the separate transport modes and overall themes – the three most relevant to aviation are:

- *Enhancing the aviation connections between islands and peripheral communities and the regional centres and national gateways to allow for better business opportunities*
- *Developing initiatives for reducing the cost of transport and travel; and*
- *Developing ways to reduce and mitigate the climate change impact of travelling in the region*

Six priorities for investment in the region were identified, of which two involve aviation:

- *The inter-isle network of ferries and air services in the Orkney Islands; and*
- *Connections between the Argyll islands and the mainland (both air and sea)*

Aviation is stated to be of critical importance for the region, more so than for almost any other region of the UK. Being remote from all major domestic centres of commerce and Government, its importance is evident. A significant proportion of the region's population resides on islands, for which surface journeys involve ferries that are generally slow, often infrequent and not always reliable, especially in winter.

Some areas, such as the west coasts of Sutherland and Skye, are not well served by air and have extremely long surface journey times to the National Gateways.

In addition to the two areas of concern listed above, the HITRANS Report listed the four following key policies for aviation:

- *Evaluate the economic and social opportunities of providing new or enhanced air connections around the region and externally*
- *Evaluate the impacts and outcomes of the Air Discount Scheme and assess the options for further development*
- *Encourage the development of direct rail services between Inverness and Edinburgh Airport for onward connections to the world*
- *Continue to press for slot security for the Inverness routes to Heathrow and Gatwick Airports*

The present study seeks to update HITRANS' appreciation of these four issues involving the aviation links within and from the region, so that it can prepare an updated list of aviation priorities for the next STPR.

5. ZetTrans: Shetland Transport Strategy, April 2008

The Shetland Transport Strategy adopts two principal perspectives:

> *Firstly, adopting the Shetland perspective, the transport priorities for Shetland over the next 5 to 15 years have been determined through consultation with Shetland's Community Planning Partners as well as a wide range of other stakeholders. Given this approach was adopted in the development of the Strategy there is naturally a strong set of connections between the Strategy and SIC's Single Outcome Agreement (SOA). In transport terms this means an emphasis on external links that meet the needs of their users, investment to secure the ongoing integrity of key inter-island links, ensuring that communities have levels of accessibility to maintain their viability and vitality, and that individuals do not suffer loss of opportunities or social exclusion due to transport issues.*

Secondly, there is the National perspective, and the Shetland Strategy has adopted the three NTS Strategic Outcomes in full:

- *Improved Journey Times and Connections*
- *Reduced Emissions*
- *Improved Quality, Affordability and Accessibility*

The Shetland Strategy draws three key messages from these two documents:

- *It is essential that the actions arising from the Strategy focus on the essential rather than the desirable*
- *It is also necessary that schemes and policies are developed which are fit for purpose for Shetland*

- *Finally, it will be important to prioritise interventions on basis of need, benefit and effectiveness*

From this, the following vision for ZetTrans was developed:

> *To develop **an effective, efficient, safe** and **reliable** transport system for Shetland. The transport system will comprise an **integrated** network of **accessible**, and **affordable** internal, inter-island and external links, which will contribute to the development of a **safe, healthy, vibrant** and **inclusive** society; a **diverse, successful** and **self-sufficient** economy, and enhanced **environmental quality***

The Strategy has been developed for the three main transport needs – external links, inter-Island links, and internal links throughout Shetland Mainland.

With regard to external links, these are regarded as:

> *essential for both the local population and businesses, and to afford access for visitors and trade. The main challenge is to maintain the existing levels of connectivity to mainland Scotland and beyond and identify ways in which services and linkages can be improved where needed, bearing in mind that the majority of links are not directly controlled by either ZetTrans or SIC.*
>
> *ZetTrans is committed to partnership working with existing air operators throughout the life of this Strategy in order to seek improvements to existing services to UK Mainland (frequencies, routes and timetables), delivery of affordable fares and improved customer care.*

ZetTrans has identified the need for improved services between Shetland, continental Europe and Scandinavia.

These air links are not restricted to the flights operated by Loganair from Sumburgh, but include freight and mail flights, charters for the oil industry between Scatsta and Aberdeen, and the vital air ambulance service.

The majority of the inter-island links are by ferries, but ZetTrans recognises the importance of air links to the more remote communities – Fair Isle, Foula, Papa Stour and Skerries.

> *Through the life of this Strategy, ZetTrans will continue to support the ongoing operation of Tingwall Airport as the Mainland Hub for the service, and facilities for passengers and small parcels. ZetTrans will also continue to support the ongoing operation of individual airstrips on each of the islands, most of which are owned and operated by local Airstrip Trusts with grant funding from the Council. The licensed airstrip on Fair Isle is owned and operated by the National Trust for Scotland. In addition, there are airstrips on Whalsay, Fetlar and Unst. The Whalsay airstrip is used by chartered aircraft but the Unst airstrip has been closed and is unlicensed following the downturn in usage, but continues to be maintained.*

Although ZetTrans has yet to be convinced that scheduled services to Papa Stour can be maintained, all other routes are strongly supported, and the possibilities of increased use of Fetlar and Unst airstrips will be examined. ZetTrans is also committed to working with its neighbours in Orkney to explore if there are any opportunities for collaboration in the procurement and delivery of inter-island air services.

6. Objectives Assumed for Aviation in the Highlands and Islands

Following an analysis of the four reports above, plus discussions with a wide variety of stakeholders, the following list of broad objectives for aviation in the region has been drawn up as follows. The aviation industry should:

1. Help to reverse the trend of population decline in some of the more peripheral parts of the Highlands and Islands – the 'fragile' areas as identified by HIE - by improving accessibility and affordability
2. Help to reduce economic disparities within the region, by ensuring all areas have reasonable access to national centres and assets
3. Help to maximise sustainable economic growth throughout the region, by ensuring that any potential employment opportunity is provided with the necessary air services
4. Improve use of airport and aircraft assets to reduce average cost, by increasing utilisation, encouraging the eventual use of more modern aircraft to assist sustainability and by the adoption of 'fit-for-purpose' regulations
5. Reduce average fares to encourage economic growth, notably by attracting inbound business and leisure traffic
6. Provide sufficient capacity to meet growing demands
7. Improve accessibility to health and education facilities for remote areas, including the possibility of additional or improved airstrips
8. Optimise the use of both air and sea to island communities, to ensure that available subsidies are used to maximise benefit
9. Improve accessibility to key Scottish centres
10. Improve accessibility to London and Europe
11. Improve the quality of service – aircraft types, regularity, safety
12. Improve the availability of cargo services to support economic growth
13. Reduce the environmental cost of aviation by using more fuel-efficient aircraft

In addition, there will be specific local objectives, as brought forward during the consultation process, which are discussed in Section E of this Report.

D. Recent History

1. Airport throughput

a) Passengers

At the time of the 2004 report for HITRANS by A&TC, air traffic at airports in the Highlands and Islands had been stagnant for many years, comparing unfavourably with airports in lowland Scotland and other parts of the UK, which had been growing rapidly for some time.

Table 1 in the Appendix shows how the situation has changed since 2000, with total passenger numbers shown for the 12 airports in the region that submit data to the CAA – ten HIAL airports plus Lerwick/Tingwall and Scatsta. Similar figures are shown for the five lowland airports, and a figure for the total UK airport industry.

The annual passenger data is summarised below:

Airport	2000 pax	2008 pax	AAGR %	Trough year	pax	Peak year	Pax
Barra	7,591	10,705	4.4%	2000	7,591	2008	10,715
Benbecula	33,556	33,595	0.0%	2004	29,711	2007	34,992
Campbeltown	7,556	9,090	2.3%	2000	7,556	2008	9,091
Inverness	336,701	670,752	9.0%	2000	336,701	2007	697,480
Islay	19,731	29,136	5.0%	2001	19,545	2008	29,136
Kirkwall	85,216	137,616	6.2%	2000	85,216	2008	137,616
Scatsta	240,361	243,041	0.1%	2004	228,943	2006	255,147
Stornoway	87,859	130,888	5.1%	2000	87,589	2008	130,888
Sumburgh	119,066	154,011	3.3%	2004	107,848	2008	154,011
Tingwall	2,480	4,854	8.8%	2001	1,971	2007	5,059
Tiree	4,829	8,419	7.2%	2000	4,829	2008	8,419
Wick	19,191	23,430	2.5%	2004	15,552	2008	23,430
All H&I	963,867	1,455,537	5.3%	2000	963,867	2007	1,471,804
Lowland Scot.	15.82 m	22.89 m	4.7%	2000	15.82 m	2007	22.89 m
Total UK	179.2 m	235.4 m	3.5%	2000	179.2 m	2007	240.0 m

The data in the preceding table can also be studied in terms of the five regional groupings, as shown below

Airport group	2000 pax	2008 pax	AAGR %	% of total 2000	% of total 2008
Shetland Islands	361,907	401,906	1.3%	37.5%	27.6%
Orkney Islands	85,216	137,616	6.2%	8.8%	9.5%
Western Isles	129,006	175,188	3.9%	13.4%	12.0%
Argyll & Bute	32,116	46,645	4.8%	3.3%	3.2%
Highland/Moray	355,892	694,182	8.7%	36.9%	47.7%
All H&I	963,867	1,455,537	5.3%	100.0%	100.0%

Growth at the region's airports as a whole (at an average of 5.3% a year over the eight year period) compares well with the five lowland Scotland airports (at 4.7% a year) and with the total for all UK at 3.5 % a year.

Most Highlands and Islands airports showed steady growth throughout the period, although Benbecula, Inverness and Tingwall experienced declines in 2008. Three airports – Benbecula, Sumburgh and Scatsta – showed poor results for the period 2000 to 2004, but had recovered to exceed the 2000 levels by 2008.

The relative decline in the importance of air services to and from the Shetland Islands is mainly as a result of the relatively stable situation regarding the substantial oil industry charter market to and from Scatsta, while the 'normal' scheduled service markets continued to grow.

The other significant change was at Inverness, where, after many years of stagnation, the low-cost market to England suddenly took off, providing a substantial increase in the ability to travel direct rather than make surface journeys to Glasgow and Edinburgh to connect with flights.

However, the economic downturn which commenced with a vengeance in September 2008 is still having an impact on total passenger carryings. *Table 2* in the Appendix shows the monthly variance for each airport for January through to July 2009 compared with 2008. For the whole 6 month period, airports in the Highlands and Islands were down by 6%, with the worst month (February) having been down by 14%. Three airports were still showing increases for the period (Scatsta at +14%, Campbeltown at +8%, and Tiree at +2%), while Inverness was showing a decline of 11% and Islay of 13%. Lowland Scotland and the UK as a whole are again faring slightly worse, with declines over the six-month period averaging 8%.

b) Freight and Mail

Table 3 in the Appendix shows how freight tonnages at each of the twelve regional airports have changed over the past eight years, as well as movements elsewhere in Scotland.

The following table summarises the freight data (in tonnes)

Airport	2000 tonnes	2008 tonnes	AAGR %	Trough year	tonnes	Peak year	Tonnes
Barra	40	34	- 1.9%	2007	34	2000	40
Benbecula	261	235	- 1.3%	2003	206	2000	261
Campbeltown	2	1	- 8.9%	2008	1	2000	2
Inverness	286	526	7.9%	2000	286	2004	1,393
Islay	171	275	6.1%	2000	171	2008	275
Kirkwall	129	106	- 2.5%	2006	102	2004	451
Scatsta	0	0	-	2003	44	7 yrs	0
Stornoway	956	723	- 3.4%	2003	655	2000	956
Sumburgh	248	551	10.5%	2000	248	2004	772
Tingwall	79	144	7.8%	2000	79	2004	413
Tiree	28	23	- 2.7%	2008	23	2000	28
Wick	5	2	- 13%	2008	2	2001	8
All H&I	2,205	2,619	2.2%	2000	2,205	2004	4,210
Lowland Scot.	72,377	42,935	- 6.3%	2008	42,935	2004	73,362
Total UK	2311,279	2282,153	- 0.1%	2001	2143,281	2004	2368,601

Overall, freight tonnages through Highlands and Islands airports have shown an annual increase of 2.2% over the period, but with significant variances by airport, ranging (at the larger airports) from - 3% a year at Stornoway to plus 10% at Sumburgh.

The major collapse of freight at lowland Scotland airports is mainly due to a halving of freight throughput at both Prestwick and Glasgow.

Overall, freight throughput at airports in the Highlands and Islands remains very small, with an average in 2008 of just 1.8 kgs of freight per passenger flown. This compares with a figure of 9.7 kgs for the UK as a whole.

Table 4 shows that mail carryings at the region's airports are very small, falling from 325 tonnes in 2000 to 136 tonnes in 2008. Three quarters of the total tonnage is now accounted for by mail landed at Islay and Tiree.

c) Air Transport Movements

Table 5 in the Appendix shows how the number of total air traffic movements has changed at the twelve airports in the Highlands and Islands since 2008, and compares the rate of change with airports in lowland Scotland and the UK as a whole.

The following table summarises the changes in ATMs:

Airport	2000 ATMs	2008 ATMs	AAGR %	Trough year	ATMs	Peak year	ATMs
Barra	1,056	1,249	2.1%	2000	1,056	2008	1,249
Benbecula	2,061	2,755	3.7%	2000	2,061	2007	2,857
Campbeltown	941	978	0.5%	2000	941	2005	987
Inverness	8,232	13,537	6.4%	2000	8,232	2006	16,575
Islay	1,110	1,477	3.6%	2000	1,110	2008	1,477
Kirkwall	7,219	11,198	5.6%	2000	7,219	2008	11,198
Scatsta	10,829	10,696	- 0.2%	2003	9,848	2006	11,409
Stornoway	3,595	7,784	10.1%	2000	3,595	2008	7,784
Sumburgh	4,701	7,816	6.6%	2003	4,477	2008	7,816
Tingwall	1,241	1,545	2.8%	2004	564	2007	1,667
Tiree	594	798	3.8%	2000	594	2008	798
Wick	2,311	2,141	- 1.0%	2008	2,141	2005	2,732
All H&I	43,890	61,974	4.4%	2000	43,890	2007	63,065
Lowland Scot.	265,573	324,392	2.7%	2000	265,573	2007	335,217
Total UK	1961,799	2327,256	2.2%	2000	1961,799	2007	2378,739

The shape of the table closely parallels that of the passenger numbers, but overall, ATMs have increased by an average of 4.4% at Highlands and Islands airports between 2000 and 2008, while passengers have increased by 5.3%.

As a result the average passengers per flight in 2000 (22.0) rose to 23.5, suggesting both an increase in passenger load factor as well as some increase in the average aircraft size, notably at Inverness where much of the growth has been on routes to England, using much larger aircraft than those used for its Scottish services.

Average passengers per aircraft by airport changed as follows:

Airport	2000 pax/flt	2008 pax/flt	Variance number	Variance per cent
Barra	7.2	8.6	+ 1.4	+ 19%
Benbecula	16.2	12.2	- 4.0	- 24%
Campbeltown	8.0	9.3	+ 1.3	+ 16%
Inverness	40.9	49.5	+ 8.6	+ 21%
Islay	17.8	19.7	+ 1.9	+ 11%
Kirkwall	11.8	12.3	+ 0.5	+ 4%
Scatsta	22.2	22.7	+ 0.5	+ 2%
Stornoway	24.4	16.8	- 7.6	- 31%
Sumburgh	25.3	19.7	- 5.6	- 22%
Tingwall	2.0	3.1	+ 1.1	+ 55%
Tiree	8.1	10.6	+ 2.5	+ 31%
Wick	8.3	10.9	+ 2.6	+ 31%
All H&I	22.0	23.5	+ 1.5	+ 7%
Lowland Scot.	59.6	70.6	+ 11.0	+ 18%
Total UK	91.3	101.1	+ 9.8	+ 11%

The table shows starkly why the airports and air services in the Highlands and Islands are so completely different to the situation in the rest of the United Kingdom. If one takes Inverness out of the equation, with its large jets on the routes to England, the average number of passengers going through the region's airports was only some 16.2 passengers per flight in 2008 compared to an average UK figure of 101.1.

The difference is increasing – the average growth of passengers per flight was higher in lowland Scotland and the UK as a whole compared with airports in the Highlands and Islands.

It should be noted that the significant declines in passengers per flight at Benbecula, Stornoway and Sumburgh between 2000 and 2008 were due to the replacement of the low-frequency 64-seat ATP on the trunk routes by higher frequencies with the 33-seat Saab 340.

2. Airports and airport opening hours

Table 6 in the Appendix summarises basic information for each of the major airports in the Highlands and Islands, particularly advertised opening hours and basic infrastructure.

There have been no significant changes since 2000 apart from the improved facilities now available at Oban, Coll and Colonsay, the lengthening of Sumburgh's cross runway to permit Saab 340 aircraft to take off with a full payload in IFR conditions, and the provision of an ILS facility at Inverness.

There are currently no major improvements planned for any airport in the region – capital expenditure will be used predominantly to maintain current infrastructure and improve some terminal facilities. There may be some improvements at Scatsta if it becomes accepted as a diversion airfield for Sumburgh.

The following table compares the published winter airport opening hours at each HIAL airport in 2000, as taken from HIAL's annual Report for 2000/2001, and the current published opening hours.

Airport	2000 M-F	2000 Sa	2000 Su	2000 total	2009 M-F	2009 Sa	2009 Su	2009 total	Diff.
Barra	2:30	1:15	0	13:45	2:30	1:15	0	13:45	-
Benbecula	7:00	1:30	0	36:30	9:45	4:00	1:30	54:15	+ 17:45
Campbeltown	8:00	0	0	40:00	8:05	0	0	40:25	+ 00:25
Inverness	15:15	12:30	14:15	103:00	15:00	12:45	13:15	101:00	- 02:00
Islay	8:45	0:45	0	44:30	9:30	1:00	1:00	49:30	+ 05:00
Kirkwall	11:00	9:30	2:00	66:30	12:15	11:15	10:45	83:15	+ 16:45
Oban	0	0	0	0	8:00	8:00	8:00	56:00	+ 56:00
Scatsta				n.a.	12:00	12:00	12:00	84:00	-
Stornoway	9:30	7:00	0	54:30	12:45	10:15	1:45	75:45	+ 21:15
Sumburgh	13:00	8:30	8:30	82:00	13:00	8:30	9:45	83:15	+ 01:15
Tingwall				n.a.	8:30	0	0	42:30	-
Tiree	5:00	1:30	0	26:30	5:00	1:30	0	26:30	-
Wick	10:45	5:30	0	59:15	13:00	5:30	0	70:30	+ 11:15
HIAL airports	453:45	48:00	24:45	526:30	504:10	56:30	38:00	598:40	+ 72:10

In 2000, with a maximum of 168 hours available each week, only Inverness was open for half the available time, while six were open for less than a quarter of the possible hours.

By 2009 this has improved significantly at many of the larger airports in the region – Benbecula, Kirkwall, Stornoway and Wick – but there have been only minor changes at Inverness and Sumburgh. Similarly, there have been no real increases at any of the four small airports.

Overall, however, the amount of winter availability has increased by around 14% at the ten HIAL airports, a significant improvement in helping airlines to improve productivity, and for passengers to benefit from improved accessibility.

No information is at hand on Tingwall and Scatsta opening hours for 2000, but they are expected to be similar to those shown for 2009. Regarding Oban, it closes at sunset in the middle of winter, earlier than the planned16:30 closure.

3. Airlines

In 2000, as now, most of the routes to, from and within the Highlands and Islands were operated by Loganair. At that time it was in association with British Regional Airlines, itself an associate of British Airways, and used BA flight numbers, even on the inter-island routes from Kirkwall and Tingwall. In 2000, Loganair operated the PSO service between Stornoway and Benbecula.

The other airlines operating scheduled services in 2000 were:

- Air Team of Norway from Sumburgh to Bergen
- Gill Air from Wick to Aberdeen and Newcastle
- British Regional Airlines from Inverness to Gatwick (from November 1997)
- easyJet from Inverness to Luton (commenced November 1996)

The British Airways route to Heathrow had terminated in October 1997 in favour of the service to Gatwick, and KLM UK experimented with a daily service to Amsterdam (with the return leg via Edinburgh) between April 1997 and March 1998, and a service to Stansted between November 1996 and March 1998.

Currently, as shown in *Table 7* of the Appendix, most of the routes are still flown by Loganair, only now in association with Flybe and using a BE flight designator. The PSO flights from Kirkwall operate with an LS Loganair code.

The other airlines currently planning to operate scheduled services in winter 2009/10 are:

- Directflight on the PSO services from Tingwall and Sumburgh
- Highland Airways on Inverness to Stornoway, from Sumburgh to Inverness, and on the PSO routes from Stornoway and from Oban
- Eastern Airways from Aberdeen to Wick and Stornoway
- Flybe from Inverness to Gatwick, Belfast City, Manchester and Birmingham
- easyJet from Inverness to Luton, Gatwick and Bristol

Airlines which were operating up to mid-summer in 2009 but which have now ceased include Aer Arann (Inverness to Dublin) and Ryanair (Inverness to East Midlands), plus a peak Saturday operation by Lufthansa to Inverness from Dusseldorf.

There are in addition a small number of regular charter airlines linking Inverness with Switzerland and Mediterranean destinations, and Scatsta with Aberdeen. Domestic charter operations in the region are operated by Loch Lomond Seaplanes.

4. Aircraft and utilisation rates

Aircraft used in the region have also not changed significantly between 2000 and 2009.

The Britten Norman Islander is still the workhorse of the PSO routes in the Shetland and Orkney Islands, and now also from Oban to Coll, Tiree and Colonsay.

The Bombardier Twin Otter - 310 is still operating the route to the tidal beach at Barra, and on other routes such as to Campbeltown as a result.

The Saab 340B is still operating most of the remaining routes in the Highlands and Islands, having taken over the trunk routes previously operated by the larger ATP turboprop from Sumburgh, Stornoway and Benbecula, but now at higher frequencies; and has also replaced the remaining services still operated in 2000 by the Shorts 360, and the Air Team Beechcraft to Bergen.

The Shorts 360 of Gill Air has been replaced by the Jetstream 41 of Eastern Airways, while Highland Airways uses the smaller Jetstream 31 on its routes in the region.

On routes from Inverness, the BAe 146 of British Regional Airways to Gatwick has been replaced by the Embraer 195 of Flybe, while the Dash 8-400 is used on the midday service to Gatwick and to other cross-border destinations.

Recently-used aircraft types include the ATR72 by Aer Arann and the Boeing 737-800 by Ryanair.

The other new aircraft first seen in 2009 was the amphibious version of the 9-seat Cessna Caravan of Loch Lomond Seaplanes, which is currently restricted to charter operations, but which is expected to become (in both its amphibious and land versions) available for scheduled service use in the next few years.

Of significance to the future of aviation in the region are the utilisation rates for each aircraft type. *Table 8* in the Appendix reproduces data provided to the CAA by Loganair for financial years ending in 2000 and 2008, and by Eastern Airways for 2003 and 2008.

The table confirms the very low utilisations achieved by each of the 'workhorse' aircraft used by these airlines, when compared with the utilisation rates achieved by easyJet with its larger jet aircraft.

The data is summarised below:

Airline	Aircraft	Daily utilisation 2000 (hrs)	Daily utilisation 2008 (hrs)	% change
Loganair	Islander	0.7	1.0	+ 43%
	Twin Otter	3.3	2.5	- 25%
	Saab 340	4.6	4.0	- 13%
	Shorts 360	2.7	-	-
Eastern Airways	Jetstream 31	2.0*	-	-
	Jetstream 41	1.0*	2.6	+ 160%
	Saab 2000	-	3.8	-
easyJet	Boeing 737	10.2	10.6	+ 4%

* Note: data for 2003, as data for 2000 was not submitted to CAA

Compared to the daily utilisations per aircraft achieved by easyJet with its large fleet of Boeing 737s, the utilisations of small aircraft in the Highlands and Islands region are very disappointing. The maximum utilisation rate of 4.0 hours by Loganair with its fleet of 16 Saab 340 aircraft (including admittedly, three SF340A cargo aircraft with very low utilisation rates) is less than it was with a much smaller fleet in 2000, but still significantly better than the rates achieved by Eastern Airways with its fleet of 22 Jetstreams.

Several factors lead to these relatively disappointing utilisation rates:

- the age of the aircraft, requiring more maintenance time, and more cover aircraft
- the lack of lighting on many smaller airstrips, and the constraints imposed by the tide at Barra, affecting the ability to schedule extra flights by the Islander and Twin Otter fleets
- the relative cheapness of the aircraft when compared with the cost of flight crews – it is more important to maximise crew utilisations than aircraft utilisations
- the restricted opening hours, impacting on the ability to offer extra marginal flights such as on summer evenings and weekends
- the apparent unwillingness of residents of the Highlands and Islands to contemplate flights which leave before 07:30 or after 18:30
- The inability to operate over long distances which could otherwise possibly justify overnight fights to and from Inverness

5. Scheduled routes operated

Table 9 in the Appendix shows which scheduled domestic routes were operated during each year from 2000 to 2008, by airport, and the number of passengers on each route, as reported to the CAA.

The numbers for each airport do not agree with the total airport figures shown in Section 1 above, as they exclude all charter flights and any international scheduled flights which are shown later in this section.

Airport by airport, the changes have been as shown below.

a) Shetland Islands

To and from Sumburgh	2000 pax	2008 pax	AAGR %	Trough year	Pax	Peak year	Pax
Aberdeen	74,220	68,357	- 1.0%	2004	60,845	2000	74,220
Edinburgh[1]	13,780	30,801	10.6%	2000	13,780	2008	30,801
Glasgow[1]	28,311	17,227	- 6.0%	2002	12,327	2000	28,311
Inverness[1]	6,724	158	-37.4%	2000	6,724	2007	80
Kirkwall[1]	6,200	8,709	4.3%	2004	5,799	2007	8,998
Wick[1]	252	0	-	2 yrs	0	2005	9,146
3 outer isles	1,442	211	-21.4%	2006	94	2000	1,442
London-STN	0	2,108	-	6 yrs	0	2007	2,493
Total	130,929	127,571	- 0.3%	2004	98,637	2000	130,929

[1] These route-by-route figures should be treated with care, as the CAA reports all passengers on multi-sector flights flying to or from the nearest airport. During this period there have been multi-sector flights on LSI-WIC-EDI, and also LSI-KOI-INV-GLA.

To and from Tingwall	2000 pax	2008 pax	AAGR %	Trough year	Pax	Peak year	Pax
5 outer isles	1,637	4,731	14.2%	2000	1,637	2007	4,984
Total	1,637	4,731	14.2%	2000	1,637	2007	4,984

Passenger traffic to and from Sumburgh fell noticeably from 2000 to 2004, but has since recovered, although traffic to Aberdeen is still down as a result of the increased frequency direct to Edinburgh. Inter-isles traffic from Tingwall has shown significant growth, but still reflects only some nine departing passengers each day.

b) Orkney Islands

To and from Kirkwall	2000 pax	2008 pax	AAGR %	Trough year	Pax	Peak year	Pax
Aberdeen	35,408	44,177	2.8%	2000	35,408	2008	44,177
Edinburgh [1]	24,995	35,656	4.5%	2005	20,423	2008	35,656
Glasgow [1]	1,407	15,055	34.5%	2000	1,407	2007	15,466
Inverness [1]	4,822	25,085	22.9%	2000	4,822	2007	25,867
Sumburgh	6,200	8,709	4.3%	2004	5,799	2007	8,998
Wick [1]	2,447	0	-	2008	0	2003	9,942
Six outer isles	12,333	20,404	6.5%	2000	12,433	2007	21,089
Total	87,612	149,086	6.9%	2000	87,612	2008	149,086

[1] These route-by-route figures should be treated with care, as the CAA reports all passengers on multi-sector flights flying to or from the nearest airport. During this period there have been multi-sector flights on KOI-INV-GLA, KOI-INV-EDI and KOI-WIC-EDI.

Growth has been fairly constant and substantial on all routes from Kirkwall over the past eight years. Again, traffic on the route to Aberdeen has grown less fast as more direct services are offered to the central lowlands. The inter-isles routes have also continued to grow rapidly.

c) Western Isles

To and from Barra	2000 pax	2008 pax	AAGR %	Trough year	Pax	Peak year	Pax
Benbecula	2,509	1,656	-5.1%	2008	1,656	2001	3,021
Glasgow	4,869	9,066	8.1%	2000	4,869	2008	9,066
Total	7,378	10,722	4.8%	2000	7,378	2008	10,722

To and from Benbecula	2000 pax	2008 pax	AAGR %	Trough year	Pax	Peak year	Pax
Barra	2,509	1,656	-5.1%	2008	1,656	2001	3,021
Glasgow	21,297	25,201	2.1%	2004	18,787	2008	25,201
Inverness	0	18	-	6 yrs	0	2007	1,404
Stornoway	8,989	7,330	- 2.5%	2008	7,330	2001	9,684
Total	32,795	34,205	0.5%	2004	29,820	2007	35,660

To and from Stornoway	2000 pax	2008 pax	AAGR %	Trough year	Pax	Peak year	Pax
Aberdeen	0	7,113	-	6 yrs	0	2008	7,113
Benbecula	8,989	7,330	- 2.5%	2008	7,330	2001	9,684
Edinburgh [1]	8,428	28,320	16.4%	2000	8,428	2004	31,032
Glasgow	49,845	58,144	1.9%	2004	42,031	2008	58,144
Inverness [1]	19,860	35,636	7.6%	2000	19,860	2007	36,403
Total	87,122	135,543	5.8%	2000	87,122	2008	135,543

[1] These route-by-route figures should be treated with care, as the CAA reports all passengers on multi-sector flights flying to or from the nearest airport. During this period there have been multi-sector flights on SYY-INV-EDI.

Both Stornoway and Barra have shown consistent growth across this eight year period of around 5% a year. The development of direct services from Stornoway to Edinburgh has affected demand for Glasgow, and it now accounts for at least a third of the combined traffics.

Passenger traffic fell at Benbecula from 2000 to 2004, but has now exceeded the 2000 levels. The PSO routes to Barra and Stornoway have however continued to decline, with an average of three passengers a flight to Barra, and seven to Stornoway.

d) Argyll and Bute

To and from Campbeltown	2000 pax	2008 pax	AAGR %	Trough year	Pax	Peak year	Pax
Glasgow	7,069	9,072	3.2%	2000	7,069	2008	9,072
Islay	0	0	-	5 yrs	0	2006	132
Total	7,069	9,072	3.2%	2000	7,069	2008	9,072

To and from Islay	2000 pax	2008 pax	AAGR %	Trough year	Pax	Peak year	Pax
Campbeltown	0	0	-	5 yrs	0	2006	132
Glasgow	18,678	29,338	5.8%	2000	18,678	2008	29,338
Total	18,678	29,338	5.8%	2000	18,678	2008	29,338

To and from Oban	2000 pax	2008 pax	AAGR %	Trough year	Pax	Peak year	Pax
Tiree	0	440	-	8 yrs	0	2008	440
Total	0	440	-	8 yrs	0	2008	440

To and from Tiree	2000 pax	2008 pax	AAGR %	Trough year	Pax	Peak year	Pax
Glasgow	4,641	7,894	6.9%	2000	4,641	2008	7,894
Oban	0	440	-	8 yrs	0	2008	440
Total	4,641	8,334	7.6%	2000	4,641	2008	8,334

Traffic has continued to grow on all three Glasgow routes to Campbeltown, Islay and Tiree, with Tiree showing the greatest growths. There have been no new routes in the past eight years, apart from the PSO route from Oban to Tiree. The CAA does not report data from Oban to Coll and Colonsay.

e) Highland and Moray

To and from Inverness (a)	2000 pax	2008 pax	AAGR %	Trough year	Pax	Peak year	Pax
Scotland:							
Benbecula	0	18	-	6 yrs	0	2007	1,404
Edinburgh [1]	0	7,510	-	2000	0	2005	17,130
Glasgow [1]	12,814	0	-	2 yrs	0	2002	27,717
Kirkwall [1]	4,822	25,085	22.9%	2000	4,822	2007	25,867
Stornoway [1]	19,860	35,636	7.6%	2000	19,860	2007	36,403
Sumburgh [1]	6,724	158	-37.4%	2007	80	2000	6,724
Wick	0	0	-	8 yrs	0	1005	183
Sub-Total	44,220	68,407	5.6%	2000	44,220	2003	78,419

[1] These route-by-route figures should be treated with care, as the CAA reports all passengers on multi-sector flights flying to or from the nearest airport. During this period there have been multi-sector flights on GLA-INV-KOI-LSI, and SYY-INV-EDI.

To and from Inverness (b)	2000 pax	2008 pax	AAGR %	Trough year	Pax	Peak year	Pax
Other UK:							
Belfast City	0	22,618	-	6 yrs	0	2007	24,393
Belfast Intl	0	0	-	7 yrs	0	2006	39,801
Birmingham	0	24,947	-	3 yrs	0	2008	24,947
Bristol	0	73,960	-	5 yrs	0	2006	82,487
East Midlands	0	40,185	-	7 yrs	0	2008	40,185
Exeter	0	5,824	-	8 yrs	0	2008	5,824
Leeds Bradfd	0	815	-	6 yrs	0	2006	4,685
Liverpool	0	0	-	7 yrs	0	2007	43,760
London-LGW	156,598	242,645	5.6%	2001	151,998	2004	247,828
London-LHR	0	7,899	-	4 yrs	0	2005	65,475
London-LTN	108,072	102,495	- 0.7%	2006	100,354	2004	115,022
Manchester	0	42,890	-	3 yrs	0	2008	42,890

Newcastle	0	0	-	8 yrs	0	2006	916
Southampton	0	14,862	-	7 yrs	0	2008	14,862
Sub-Total	264,670	579,140	10.3%	2000	264,670	2007	598,446

To and from Wick	2000 pax	2008 pax	AAGR %	Trough year	Pax	Peak year	Pax
Aberdeen	8,376	16,539	8.9%	2004	5,992	2008	16,539
Edinburgh	0	7,255	-	2000	0	2008	7,255
Glasgow	0	0	-	8 yrs	0	2005	22
Inverness	0	0	-	8 yrs	0	2005	183
Kirkwall	2,447	0	-	2008	0	2003	9,942
Sumburgh	252	0	-	2 yrs	0	2005	9,146
Newcastle	7,658	0	-	7 yrs	0	2000	7,685
Total	18,760	23,794	3.0%	2001	16,435	2006	25,726

The routes from Inverness have been split into Scottish routes, and those to England and Northern Ireland. The Scottish routes have shown continued substantial growth at 5.6% a year, despite the loss of the substantial route to Glasgow. Because of the multi-sector nature of most routes from Inverness, the data for each city-pair should be treated with caution.

Routes from Inverness to the rest of the United Kingdom have shown significant growth throughout the period, despite a 3% decline in 2008 compared to 2007. With traffic to the three London airports averaging 3.7% across the period, most of the growth has occurred on routes to other provincial cities, notably to Bristol and Manchester. The route to East Midlands has now been terminated.

In 2000, the Gill Air route from Wick to Aberdeen and Newcastle carried 16,034 passengers, while the replacement service by Eastern Airways carried 16,539 in 2008 – or no growth at all. Overall, growth at Wick has averaged just 3% a year, with all the growth coming from the daily flight to Edinburgh.

f) International routes

To and from	2000 pax	2008 pax	AAGR %	Trough year	Pax	Peak year	Pax
INV-Dublin	0	8,345	-	6 yrs	0	2007	13,204
INV-Stockhom	0	0	-	8 yrs	0	2004	2,861
KOI-Bergen	0	1,414	-	7 yrs	0	2008	1,414
LSI-Oslo	0	0	-	7 yrs	0	2004	1,083
LSI-Faeroes	0	0	-	8 yrs	0	2006	521
Total-sched.	0	9,759	-	3 yrs	0	2007	13,204
INV-charter	117	6,690	++	3 yrs	0	2006	9,677
LSI-charter	0	1,508	-	6 yrs	0	2008	1,508
Total-charter	117	8,198	++	2 yrs	0	2006	9,677
Total-Intl.	117	17,957	++	2 yrs	0	2006	20,852

There were no scheduled international services from any of the region's airports in 2000, although by 2007, there were some 13,204, all on the route between Inverness and Dublin. The total fell back to 9,759 in 2008, and, now that the Dublin route has been terminated, all that is currently planned for 2010 are the seasonal summer service flights between Sumburgh and Bergen.

However, charter flights to Europe have continued to prosper although, again, traffic in 2008 was 15% less than the peak in 2006.

6. Air fares

Table 10 in the Appendix provides details of the fares charged for a day-return trip on all major routes within the Highlands and Islands. Web bookings were made on September 28th for round-trip bookings in one day's, one week's, and one month's time, and the maximum fares charged are compared with the published fares for 2001 as used in the earlier A&TC report.

In addition, the maximum fares in 2009 are shown as a rate per mile, assuming straight-line distances between airports. For non-PSO routes they range from a maximum of 30p a mile on Inverness-Bristol (429 miles) to £2.66 a mile on Wick-Aberdeen (92 miles).

PSO routes are identified with an asterisk, as these offer reduced 'core' fares for all customers.

The final column of *Table 10* compares the change in the maximum, or core, fare on the majority of routes between 2001 and 2009. On three routes there have been hardly any increase over this period – Inverness-Edinburgh has actually decreased by £2.70, Wick-Aberdeen is up by just fifty pence, and Glasgow-Sumburgh by £8.30.

Most base fares have risen by around 20% over this period, but several have grown far in excess of this average. Glasgow-Islay is up by almost 40%, while four other routes (Glasgow-Stornoway, Glasgow-Benbecula, Sumburgh-Kirkwall and Sumburgh-Aberdeen) are all in the plus 28-32% area.

7. Schedules on key routes

The 2004 study by A&TC sought to devise schedules which met certain parameters as suggested at the time by HITRANS

These parameters were, for each identified key route:

- A maximum flight time of 60 minutes
- A minimum elapsed time of 6 hours at both ends of each route to allow a reasonable period of working time on a day return trip
- A minimum of three round trips a day plus a daily service at the weekends

The following tables show how far the schedules met these targets on five key routes in a) November 2001, b) on the assumption that the A&TC re-design of the schedules took place, and c) in summer 2009.

The colour coding shows how closely each parameter is met:

60
Target parameter fully met

65
Target parameter marginally missed

115
Target parameter failed

a) Actual schedules November 2001

Service criteria / Route	LSI-ABZ	KOI-EDI	WIC-EDI	SYY-GLA	ILY-GLA
Sector time of 60 mins	60	115	65	60	40
Minimum 6 hours on mainland	9:35	7:10	-	4:20	6:20
Minimum 6 hours at periphery	6:15	1:30	2:50	6:55	8:20
3 round trips per day plus weekend (Mon-Fri) – (Sat) – (Sun)	3 – 2 – 2	2 – 1 - 0	1 – 1 - 0	2 – 1 - 0	2 – 1 - 0

b) Proposed PSO schedules

Service criteria / Route	LSI-ABZ	KOI-EDI	WIC-EDI	SYY-GLA	ILY-GLA
Sector time of 60 mins	60	70	65	65	40
Minimum 6 hours on mainland	11:10	11:00	7:00	11:05	8:20
Minimum 6 hours at periphery	12:20	7:40[1]	4:20[2]	7:45	10:20
3 round trips per day plus weekend (Mon-Fri) – (Sat) – (Sun)	5 – 4 – 2	2 – 1 - 1[3]	2 – 1 – 1[3]	4 – 3 - 1	3 – 2 – 1

[1] 11:30 if use Glasgow instead [2] 9:25 if NB from Glasgow [3] plus extra 2 to Glasgow

c) Actual schedules summer 2009

Service criteria / Route	LSI-ABZ	KOI-EDI	WIC-EDI	SYY-GLA	ILY-GLA
Sector time of 60 mins	60	80	70	65	40
Minimum 6 hours on mainland	9:30	8:50	-	8:30	6:50
Minimum 6 hours at periphery	12:30	4:50	-	11:25	9:10
3 round trips per day plus weekend (Mon-Fri) – (Sat) – (Sun)	4 – 3 – 3	2[1] – 2 - 1	1 – 0 - 0	4 – 3 - 2	2 – 1 - 2

[1] 3 pd Mo,Th,Fr

These tables show:

- Sumburgh-Aberdeen – all targets met in both 2001 and 2009, but with a greater frequency and more time available for day-return visitors to Shetland in 2009
- Kirkwall-Edinburgh – a poor service in 2001, with a stopping service to Edinburgh, and no possibility of a day return to the Orkney Islands. This has now greatly improved, although day-trips to Kirkwall have only around three clear hours for business.
- Wick-Edinburgh – the situation was very poor in 2000, and there have been no improvements since, with a single daily flight and no possibility of day-return options in either direction. The A&TC plan included increased frequency from Wick to the central lowlands, but the cost of this, plus the relatively low forecast levels of traffic, would require a PSO to be awarded.
- Stornoway-Glasgow – this has improved: the frequency has doubled since 2000, as have the amounts of time available at each end of the route for day-return facilities.
- Islay-Glasgow – there has been no change since 2000, apart from the introduction of more weekend services, and slightly longer times available at each destination. Although an extra third frequency would be ideal, the route currently meets almost all of the parameters.

8. Route subsidies – PSOs, ADS, RDF, RET

Significant changes have occurred since the 2004 report into future air services to and from the Highlands and Islands concerning revenue subsidies for operations within the region.

a) PSO routes

With regard to PSO routes, all previous routes have been maintained, with the level of subsidy being increased on the routes from Glasgow to Barra, Campbeltown and Tiree. In addition, Argyll and Bute introduced a new PSO linking Oban with Coll, Tiree and Colonsay, and awarded the first contract to Highland Airways.

With regards to the Shetland Islands PSO, the Council has purchased or leased two Islander aircraft, and tendered for their operation. As a result, Directflight of Cranfield has currently replaced Loganair as the operator.

b) The Air Discount Scheme

The Scottish Government considered the PSO scheme put forward by HITRANS, but found the probable cost to be too great. Instead, with agreement from the EU, it instituted the ADS in 2006, offering residents of all island groups (except from Barra and Tiree) plus Caithness and Sutherland 40% off the core fare for travel to the four key mainland cities. Initially a trial, it has been extended once, and it is expected that it will continue indefinitely with the current regulations.

c) The Route Development Fund

Again with the agreement of the EU, the RDF was used to provide financial assistance to airlines to bring forward routes which would take time to become established. Several routes have succeeded in surviving, including Inverness to Manchester, Birmingham, Belfast and Bristol, and also Aberdeen to Stornoway; while others have been short-lived, including Inverness to Stockholm, Liverpool and East Midlands.

The RDF concept has now been sufficiently re-regulated by the EU that there is little likelihood of the scheme being resurrected. Other methods of encouraging airlines to launch valuable routes are now being studied.

d) The Road Equivalent Tariff Scheme

Aviation has benefited significantly from revenue assistance in recent years, and now a pilot RET scheme has been introduced to reduce the cost of ferries from the mainland to the Western Isles, Coll and Tiree. This trial started in November 2008 but is expected to be retained with or without amendments, and extended to further routes.

9. The economic background

Another significant change since the report of 2004 has been the major recession affecting much of the world. It started accelerating in the summer of 2007, reaching maximum decreases in output between September 2008 and June 2009, with some expectation of a slow recovery now being under way.

Although growth will be steady from now on, it may be two to three years before the economic picture is as sound as it was in 2007. However, by the time the next spending review is due to be implemented (2013 – 2022), it is fully expected that economic growth will be under way once more. As a result, no allowance has been

made in this study for the drop in air passenger traffics expected during the period 2009 to 2012.

10. The environmental background

The other less expected development since 2004 has been the major impact of the environmental movement on all economic activity, with much emphasis being placed on the carbon emissions of aircraft.

Although the output of the small aircraft used in the Highlands and Islands is de minimis compared to the overall emissions of the region, it is acknowledged that the emotive aspect of aviation will remain at the forefront.

The cost of replacing the current ageing, fuel-inefficient aircraft used on the local services in the region with modern fuel-efficient turbo-prop aircraft would be expensive if their only impact were to reduce emissions. However, the environment-friendly aspect of such new aircraft may help to justify finance for their acquisition if grants for the purchase of such aircraft could be made.

E. Current Problems

1. Introduction

In this section, the report summarises the broad range of problems currently confronting aviation in the region, and of problems which the region will have to confront in the near future.

The study team had access to a variety of sources in determining the range of current and predicted future aviation problems in the Highlands and Islands. The team itself has had lengthy experience of aviation in the region, having worked for the major airport operator, individual airlines, regional Councils, and regional bodies such as HIE and HITRANS on a wide variety of aviation issues in recent years. It has also been able to draw on its broad company experience of aviation issues elsewhere in the United Kingdom, and further afield.

Secondly, the team collected or was provided with a broad range of documents, data (although some detailed airport traffic data remains outstanding) and reports by other organisations covering aviation in the region.

Thirdly, it has had access to the well-developed views of HITRANS, ZetTrans and other members of the sponsoring team for this study.

Fourthly, it organised a comprehensive programme of questionnaires sent out to a broad range of interested parties – airport and airline operators, regional councils, health and education officers, and business organisations. The questionnaires were broad-ranging, and designed to meet the specific interests and knowledge of each group of participants. For example, the questionnaires sent to the regional councils were tailored to meet the specific circumstances of each Council – Shetland Islands, Orkney Islands, Western Isles, Argyll and Bute, and Highland and Moray; while those to the airports and airlines were tailored to meet their own individual circumstances. They were also sent to the regional health boards covering the NHS air transport requirements for medical staff and patients in the region. Forty detailed responses have been received, covering most of the major areas, but not all.

Certain of the questionnaires were followed up with more lengthy discussions, either face-to-face or by telephone. Such sessions were held with the four main airline operators in the region – Loganair, Flybe, Highland Airways and Loch Lomond seaplanes – and with the RAF regarding their bases at Lossiemouth and Kinloss.

Finally, a public consultation was held in each of the five council regions – in Lerwick for the Shetland Islands on August 14th, in Kirkwall for the Orkney Islands on August 13th, in Stornoway for the Western Isles on August 18th, in Oban for Argyll and Bute on August 17th, and in Dingwall for the Highland and Moray Councils area on August 12th. Although the meetings were not openly advertised, HITRANS and ZetTrans were responsible for advising a comprehensive list of representatives to be invited. The views of over 100 participants were carefully noted at these five day-long meetings.

A very broad range of problems and opportunities were raised in the questionnaire responses and at the open meetings. Some require a strategic response, some are more tactical in nature. Not all of these are discussed in this report, which is designed to provide HITRANS and ZetTrans with the information necessary to inform the Scottish Government on strategic aviation expenditure priorities for the coming decade. Many of the responses dealt with specific day-to-day problems which can be and are being dealt with by the individual airlines, airports or other organisations, and their solution would not need to involve further investment by Government agencies, now or in the future.

However, a wide range of problems were raised which might only be solved by the provision of additional revenue or capital expenditure, perhaps granted at local or regional level, but ultimately calling upon the Scottish Government to fund.

It is these more expensive problems that are examined more closely in this section.

The problems and issues are many and varied – some relate to the whole region, some only to particular locations. Some will require substantial revenue or capital expenditure to correct, while others may be solved at far less cost. Some would incur no cost, merely requiring a change in policy, ethos or philosophy by the regulator e.g. CAA / EASA, to allow the Highlands and Islands of Scotland the same aviation opportunities accepted in many other parts of the world, including North America and many parts of Europe. To achieve such changes will require initiatives by the Scottish Government.

The main areas concern:

- Aircraft problems
- Airport problems
- Airline problems
- Routes, frequencies and capacities
- Fares, Rates and Charges
- Competing with the ferries

2. Aircraft problems

a. Introduction

The main issues relate to the three aircraft types providing the bulk of the passenger services in the region:

- the Britten-Norman Islander 2A which is used for local services in the Shetland Islands, the Orkney Islands and Argyll and Bute ('the Islander')
- the Bombardier De Havilland DH-6-310 Twin Otter, needed to operate to the beach airport at Barra, but which is also operated to Campbeltown and Tiree ('the Twin Otter'), and
- the Saab SF340B, operated by Loganair on the bulk of the regional services throughout the Highlands and Islands ('the Saab')

Other aircraft currently used for passenger services in the region are:

- the Jetstream 41 operated by Eastern Airways from Aberdeen to Wick and Stornoway, and
- the Jetstream 31 operated by Highland Airways from Stornoway to Benbecula and Inverness

In addition, Loch Lomond Seaplanes operates a Cessna Caravan in amphibious mode on charter flights from its base on the River Clyde, and the Scottish Ambulance Service uses a Beechcraft King Air B200C for its service throughout the nation.

Ben Air also operate regional freight flights using Shorts 360 and Let 10 aircraft, whilst Loganair deploy 3 SAAB 340A freighters in the region.

A wide variety of other, larger aircraft operate to and from Inverness Airport, predominantly to destinations beyond Scotland.

b. The Islander

This aircraft is uniquely designed to operate from short airstrips as short as 350 metres, of which there are many in the remoter parts of the region, and to carry up to nine passengers, which is the limit currently agreed by the UK Civil Aviation Authority for not requiring ground facilities at airstrips apart from the presence (for scheduled services) of two firemen. It has two piston engines. Its relatively low airspeed is not relevant on the short sectors it flies. Generally, the aircraft flies in and out of the smaller airstrips (which lack navigation aids) using Visual Flight Rules (VFR) but is certificated to fly en-route in Instrument Meteorological Conditions (IMC) or at night and land at the more major airports such as Kirkwall using Instrument Flight Rules (IFR) and ILS systems.

No other aircraft, either operating today or designed for the future, has this mix of capabilities. Smaller aircraft can operate from 400 metres, but are of very limited value to airlines seeking to meet market demands, and they are generally single-engined aircraft. The market needs a unique combination of performance, capacity and economics, for which at present only the BN Islander has the required UK certification. However, the Islander does not meet Performance “A” standards in terms of engine-out performance at take off.

There are other aircraft, such as the Cessna Caravan, which offer the nine seats required to both meet the market, and stay within the CAA limitations to minimise airstrip operational costs, but it too has only a single but turbine engine. Under current CAA regulations, it may fly into and out of airstrips using its single turbine engine under Visual Flight Rules, but (because of its single-engine) may not fly under IFR or in IMC for en-route operations in cloud or at night, or into airfields that require IFR operations. As a result, its regularity is currently compromised, and it could not meet the needs of island populations for services in all weathers. But this is a regulatory, not a performance or operational constraint.

No other small twin-engined replacement for the Islander is planned because the majority of aviation administrations around the world are now convinced of the safety characteristics of modern single-turbine-engined aircraft, and permit their operation for scheduled services using IFR, and indeed GPS. Few countries remain that, like

the CAA, do not permit such operations, with the result that manufacturers are no longer designing replacements for that sub-market.

This situation has remained unchanged for many years, but the problem is that the Islander design is now 45 years old, and although some 1,200 have been built, the availability of refurbished replacement Islanders will continue to dwindle through attrition. No new aircraft have been manufactured for some 15-20 years. Eventually, there will be no replacement aircraft, and the dated design may not meet increasingly strict regulations imposed by the CAA and others, particularly in relation to Performance "A".

The current Loganair aircraft were built between 1982 and 1987, and were last refurbished three years ago. By 2020, the design will be 55 years old, and these individual aircraft over 30 years old. In theory, there is no reason why these aircraft should not continue to operate for many decades yet, although the cost of regular refurbishments will continue to rise. Loganair believe that '*the aircraft have a further ten years of service capability subject to no major anti-corrosion or structural issues being located during the routine annual checks and SB190 structural checks. Any discoveries of this nature could lead to a premature need to replace the aircraft given the likely costs of repairs. In the event of an Islander replacement becoming necessary, we would expect to replace the aircraft with newer Islander aircraft'*.

In addition to the Loganair fleet, Highland Airways operates one Islander on behalf of Argyll and Bute Council at Oban and have advised no interest in increasing this fleet, and Directflight operates the inter-island services from Tingwall with two Islanders owned or leased by Shetland Islands Council. The latter two aircraft are not strictly compatible either with the Loganair fleet at Kirkwall, or with each other; one of the aircraft can only carry six passengers and is used for back-up.

Apart from age, there are other problems with the Islander. As passenger expectations increase, HSE requirements will probably grow due to, for instance, a need to reduce internal cabin noise exposure. As a result, the quality of service provided by the Islander will become inferior to what is experienced elsewhere. Already the Scottish Ambulance Service has decided that the aircraft cannot meet the standards required, and has opted instead for the (twin-turbine-engined) King Air.

Secondly, the safety standards of the twin-piston-engined Islander are being overtaken by the new breed of single-turbine-engined aircraft. The main concern regarding single-engine aircraft is if the sole engine fails on take-off; however, even

with the twin-engined Islander, an engine failure on take-off is still of major concern, because of the difficulty of manoeuvring the aircraft with one engine. The CAA currently restricts the Islander to Performance Class C, rather than the preferred Class A.

Thirdly, the aircraft needs AvGas petrol for its piston-engined aircraft, and the possibility of this continuing to be available in coming years at airports throughout the region is being called into question; however, the aircraft could be retro-fitted at a cost to accept normal automobile fuel, known also as MoGas, if AvGas disappears by around 2020.

Finally, there are two main arguments for retaining the Islander. Firstly, whatever aircraft is finally selected to replace the Islander, the initial acquisition cost will be considerably higher than the cost of retaining completely written-down Islanders, and may not be affordable either by the airlines or by the Councils that award the PSOs they operate under.

Secondly, many of the outer island airstrips were designed to accommodate the remarkable STOL (short take off and landing) characteristics of the Islander, and would need to be lengthened to accept any replacement aircraft. Initial calculations suggest that the Caravan – possibly the most logical replacement aircraft – needs an extension to around 600 metres, an increase of 150 metres for most of the airstrips. This is discussed in more detail later.

On the other hand, the Caravan, which is currently being used in its amphibious form by Loch Lomond Seaplanes, brings additional advantages. These can be summarised as:

- A far more comfortable and quiet ride
- More spacious accommodation, with an aisle between seats
- The ability to offer the maximum of 9 seats, whereas Loganair operate the Islander with 8 seats, and reducing the average seat cost by 11%
- A higher speed, enabling it to compete on longer sectors than currently flown
- Offer higher technical despatch reliability
- Uses cheaper and more readily available Jet A1 (Kerosene)
- Capacious luggage and/or cargo accommodation
- Modern avionics and a globally-accepted turbine engine
- The ability to operate as an amphibious aircraft allowing it to operate to both airstrips and to ‘water aerodromes’ (albeit that, when in amphibious configuration, the aircraft has potentially greater problems with icing than the Islander, which could restrict its operation in periods of low ambient temperature and high humidity such as during the winter period)
- Lower hourly operating costs but at a higher first cost. Unit costs could be reduced further with operation of the 13 seat Grand Caravan.

In time, there are likely to be other single-engined aircraft available which will offer competition to the Caravan for this market segment.

c. The Twin Otter

Loganair currently operates two Bombardier De Havilland DHC-6-310 Twin Otters, in an 18 seat configuration. The sole requirement for this aircraft is to enable it to operate to the 700 metre beach airstrip at Barra when the tide is out. Although several other aircraft types could meet the market characteristics of the Barra route – a twin-engined aircraft with around 20 seats from a 700 metre runway strip – the specific characteristic of beach operations is the amount of salt water that the aircraft is exposed to.

The solution is to operate an aircraft with a fixed undercarriage, so that the corrosive action of the salt can be more easily restricted to areas that can be easily washed. Most aircraft have retractable undercarriages, which therefore would transfer salt to more inaccessible parts of the aircraft, including the main airframe where corrosion would be critical. No other aircraft currently available meets all these requirements as well as the Twin Otter - types such as the Dornier 228NG or Let410 could possibly operate but would probably result in CAA regulatory issues concerning an operation to Barra, for which the Twin Otter has received specific derogations, as did the Shorts 360 in the past.

Although only one aircraft unit at a time is required to operate the daily Barra service (plus extra peak summer flights), the second is necessary to cover the extensive maintenance periods for these increasingly aged aircraft. The aircraft are also used to operate the Campbeltown service and off-peak flights to Tiree. However, a range of aircraft, including the Saab 340, could operate these routes, at only a marginal increase in cost despite the 65% increase in seat availability. The Twin Otter could also be used to operate any PSO service to the 770 metre runway at Skye (Broadford).

The other problem with the Barra operation is that it is affected by the times of low tide – as a result, the airline has great difficulty in achieving good utilisation of the dedicated Twin Otter fleet because of the changing times of this service. It would be a very expensive operation for any airline with any aircraft type.

For the moment, the assumption is that the Barra tidal airstrip remains in use, and that a minimum daily passenger service is required, offering 15 or more seats. Alternative options for the Barra airstrip are discussed later.

The problem Loganair faces is in retaining the existing aircraft. Loganair state that '*The maintenance costs and downtime for the Twin Otter aircraft has progressively escalated and we believe that a plan will need to be in place to replace the current aircraft by the end of the existing PSO tender in 2013'*.

Like the Islander, the Twin Otter has been out of production for decades – the two Loganair aircraft were both built by 1980 – and maintenance costs are likely to continue rising significantly over the coming decades. Currently, Loganair does not see how its current fleet will be capable of operating the Barra PSO beyond its current date of 2013, due to rising maintenance costs and lease rates.

Unlike the Islander, there are very few second-hand aircraft available. The aircraft has filled a very valuable niche market worldwide, and demand has outstripped supply for many years. As occasional aircraft incur accidents, or are written-off due to the difficulties of maintenance, so the price of the few remaining units rises considerably. Loganair state that they could not afford to lease a more recent Twin Otter.

This also means that there is normally only one operator – Loganair – bidding to operate the PSO route to Barra, suggesting that there are no benefits to be had from putting out that particular PSO to tender. The only other operator of the type in the UK (Isles of Scilly Skybus) has similar problems in retaining or expanding its fleet of two Twin Otters for the specific problems of short runways in Cornwall.

Longer term, there is the prospect of the Twin Otter production line being re-opened by the Canadian manufacturer Viking. Viking has acquired the type design approval for the Twin Otter and is expecting to commence deliveries of the Twin Otter 400 aircraft within the next 12 months. It has updated the design with new engines, avionics and a four-bladed prop which improves performance. It would be reasonable to expect that this could replace the existing Twin Otter 310 aircraft in service with Loganair, albeit there is already a waiting list for delivery positions stretching to 2011/2012 at present due to the relatively slow production rate. However, the cost of some $10 m for two aircraft could probably not be justified by a four-year PSO award, with little other work available for the aircraft.

There is also the problem of increasingly restrictive legislation from the CAA. Changes to airfield performance calculations under EU-Ops mean that the current Loganair Twin Otter may be required to operate in future to Performance A criteria rather than the Performance C level in which it has historically been categorised. This changes the way in which obstacles in the climb path are considered and Perf A is significantly more rigorous than Perf C in this respect. Ending the current derogation under which Twin Otter operations are conducted in accordance with Perf C could have a material impact on the operation of services to Barra using the Twin Otter. This would also affect the Viking Twin Otter 400.

In addition, because the Viking Twin Otter 400 will have different engines (PT6A-34 rather than the PT6A-27 fitted to the Twin Otter 310) and other differences in its design standard, the existing CAA derogation covering Twin Otter 310 operations may not be able to be transferred. The aircraft may be considered sufficiently different from the existing Twin Otter by the CAA that it would seek a full certification procedure from Viking before the aircraft could be added to the British register. This would add significantly to availability, time and cost.

An alternative possible solution could be to use either the 13-seat Grand Caravan aircraft to operate twice or even three times daily to Glasgow from the tidal beach, but the specific timings of the tide would make a high frequency difficult.

Alternatively the amphibious 9-seat Caravan could operate three to four times a day across the whole day, landing on the beach at low tide and on adjacent water at mid-

and high tide. This was thought by some not to be feasible due to the rough water state at various times. It would require additional pontoons to be built in a location which offers sufficient depth of water at mid-tide times, and is discussed further under the section on Airport Problems.

d. The Saab SF340

The Saab is the workhorse of the Highlands and Islands. Loganair currently operate 13 Saab SF340B passenger aircraft with 33 or 34 seats, and three Saab SF340A freighter aircraft. The current fleet was built between 1987 and 1993. The airline believes that there is scope to continue operating their Saab 340 aircraft for at least the next ten years, and probably even 20. The airline has invested heavily in the operating infrastructure for the SF340 aircraft including base maintenance facilities at Glasgow, a key consideration when operating older aircraft. This increasing self-sufficiency in the type means that Loganair is more likely to be able to prolong the life of the aircraft to a greater degree than an operator which outsources maintenance.

Although the Saab production line has long-since ceased, there are a large number of used Saab SF340 aircraft on the market, and Loganair is examining the possibility of replacing, or adding to, the existing fleet using Saab 340B Plus aircraft being retired by American Eagle and Mesaba which were 1997-1998 late build models.

Beyond this period, there are no new-technology turboprops in the 30-40 seat range being developed or even considered, while all the current competitors, such as the Dornier 328 and Dash 8-100/200 are also all out of production. The nearest competitor is the ATR42-600 with around 50 seats, which is currently too large for the majority of the airline's routes. There were a few isolated comments from other stakeholders that an aircraft bigger than the Saab was required to meet passenger demand on major routes, but Loganair prefers to meet increased demand by additional frequencies rather than have a split fleet.

For a while, the 37 seat Embraer 135 jet was thought to be the natural successor for the Saab 340. However, the rapid increase in fuel costs since the aircraft was designed in the late 1990's has swung the balance back towards fuel-efficient turboprop aircraft, especially on short routes where the extra speed of the jet is not critical.

A further aspect is cost. While Loganair can continue to acquire used SF340B aircraft for around $2 m per unit, there is no incentive to acquire more modern aircraft at between $ 6 and 10 m per unit. Low ownership costs are calculated to more than outweigh the lower operating costs of more modern aircraft.

While there would therefore seem to be no significant problems facing the Saab SF340 and the routes they serve over the coming decade, it is surprising that no aircraft manufacturer is targeting the large gap between the 13-seat Grand Caravan and the 50-seat ATR 42. It cannot just be Scotland that is searching for suitable 20 to 40 seat aircraft to maintain operations on 'thin' routes – this is considered further in the final section on Recommendations.

One problem which was raised during the consultations was the inability to use the Saab SF340 for stretchers for non-urgent medical cases when the air ambulance service could not be used, whereas the (now replaced) 64-seat ATP could cope. Similarly, the team was advised that elderly and infirm passengers have difficulty with gaining access to both the Islander and the Saab.

e. The Cessna Caravan and Grand Caravan

Despite being seen as possible solutions to the future problems surrounding the Islander and the Twin Otter, the Cessna Caravan family of aircraft themselves face problems.

Currently there are three versions of the Caravan that may be of value to the Highlands and Islands Region:

- the (land) Caravan with up to nine seats that could replace the Islander on all its current operations subject to CAA approval for IFR operations in IMC and to sufficient runway length; but also subject to the airlines being able to afford the capital cost compared to the low lease-rates available on the Islander

- the amphibious Caravan which is the same aircraft but with floats added for access to water aerodromes, but which is also able to land on airstrips while equipped with floats – it flies more slowly than the land version because of the drag caused by the floats

- the (land) Grand Caravan, at around $3 m, which is an extended version of the Caravan capable of carrying 13 passengers and additional cargo. Although smaller than the Twin Otter by five seats, it could replace that aircraft at greater speed and possibly with higher frequencies. (This was the strategy adopted by Loganair when it replaced the larger ATP on routes from Stornoway and Sumburgh with higher frequency operations by the Saab). It could also open up new routes which are too small for the Twin Otter, and too distant for the Islander.

Loch Lomond Seaplanes (LLS) currently operates one amphibious Turbine Caravan, and also one (smaller) amphibious piston engine Cessna Stationair which carries five passengers. It is understood that the costs of flying the Stationair are significantly higher than the Caravan and that one passenger on the Caravan covers the Direct Operating Costs on the sectors flown.

All of these aircraft are in current production, and are equipped with the latest avionics enabling them to access airstrips using GPS approaches, if permitted as in

North America, large parts of Europe and for General Aviation at, so far, six airfields in the UK.

The main problem relates to the inability of any single-engine turbine aircraft to gain acceptance by the UK CAA for operations at night or in cloud (referred to as SE-IMC), irrespective of the capability of the aircraft. It is almost certainly only a matter of time – most of the world has now accepted the safety of single turbine aircraft in IFR conditions, including the USA, Canada, and much of Europe, including Norway which has significantly poorer weather conditions than Scotland, plus even shorter daylight hours in winter. However, some concern was raised during the consultations that winter services might be less reliable than the current operation.

Cessna and Loch Lomond Seaplanes are currently in discussion with the CAA regarding the lifting of this restriction, which will enable the aircraft to be used on a regular basis for scheduled air services throughout the UK. Although it can be operated on scheduled services today, the prohibition on flying IFR means that the aircraft must fly either clear of cloud and in sight of the surface or with a 3 km visibility and 1000 feet from cloud, which could lead to lengthy detours on certain routes; and it can only currently fly in daylight hours, restricting the utilisation of the aircraft.

Lifting the ban would also enable the aircraft to operate as a small cargo aircraft at night, or on behalf of the SAA as an air ambulance.

There may be additional airport costs where these aircraft replace the Islander at airports such as Oban, as their marginal increase in length may be reflected in a higher category of Rescue and Fire Fighting Services (RFFS) requiring larger appliances and additional staff, even though the Caravan has the same seating capacity as the Islander and uses less volatile Jet A1 (Kerosene) as opposed to AvGas.

The other problem that the airlines could face is if they chose to operate the (larger) Grand Caravan into unlicensed airstrips. These locations might need to invest heavily into additional infrastructure and manpower to meet the much stricter requirements that the CAA (following EU regulations) imposes on aircraft carrying ten or more passengers. Initially, these aircraft would be restricted to those ten HIAL airports, plus Scatsta and possibly Oban, that are already equipped for aircraft larger than the Islander.

One potential problem anticipated was that passengers might prefer not to use a single-engined aircraft, but – when posed - no evidence of this was raised at any of the consultation meetings; indeed, LLS stated that no potential passenger had ever refused to board their aircraft.

f. Other Aircraft

The Jetstream 31s of Highland Airways (with 18 seats) were built at Prestwick in the mid 1980s, and the Jetstream 41s of Eastern Airways (with 29 seats) in the early to mid 1990’s. They are thus of the same vintage as the Saab SF 340 aircraft, and production has also been discontinued.

Jetstream 31

Jetstream 41

There are thus no immediate replacement problems, although the maintenance costs of these aircraft will increase over time. There will probably be sufficient Jetstreams and similar aircraft in the future to enable these fleets to be replaced or augmented for at least the next ten years.

Downstream, airlines operating aircraft of this size, as well as operators of the Twin Otter and Saab SF340, may have difficulty in finding suitable more modern aircraft.

The other aircraft to take note of is the turbine-engined Beechcraft King Air B200C operated by Gama Aviation on behalf of the Scottish Ambulance Service. The main reasons for its selection over the Islander were the space it offers patients and NHS staff, the comfort of its ride, and the speed of flights. It does however cause problems for the Ambulance Service in that it is unable to access most of the remote mainland and island airstrips, requiring some 800 metres of available runway. It is also a much more expensive twin-engined aircraft to operate.

Were the CAA to allow single-engine aircraft to fly in Instrument Meteorological Conditions (IMC, or in cloud or at night under IFR), the Cessna Caravan would be able to meet the SAA requirements at lower cost and be able to access significantly more airstrips.

No major problems have been raised regarding any other category of aircraft, that is to say local and regional cargo aircraft, helicopters, general aviation aircraft or military aircraft that will impact on the provision of air services in the Highlands and Islands Region.

3. Airport problems

a. Introduction

A very broad range of airport problems was raised during the consultations and in questionnaire responses. The majority of them related to aspects of cost, many of which are imposed upon the airport operators by other Government Agencies. (Although it should be noted that despite consistent efforts, no formal response has been received from HIAL as operator of the 10 largest airports in the region).

A large number of improvements was also sought, most of which had significant cost implications, both capital and revenue.

b. Government-imposed costs

A large proportion of the operating costs of airports and airstrips in the region are necessary to meet standards laid down by central Government, and there is significant concern that many of these standards are far more exacting than a 'fit-for-purpose' requirement would be. The standards are laid down to meet the needs of major airports such as Heathrow, and then adapted to suit smaller airports and airstrips.

Examples of this are as follows:

National Airport Security Programme (NASP). In recent years, expenditure levels at airports have risen dramatically, following a large number of aviation-related terrorism incidents worldwide. While the majority of the planned increases in expenditure make sense at major airports, where large aircraft are regularly operated, it becomes less obviously necessary when local flights using small aircraft are operated from regional and local airports and airstrips such as in the Highlands and Islands.

Examples quoted at the consultations include the necessity for a security fence to be constructed around the airport on Tiree to protect it from terrorists already present on the island, and the possibility of having to construct one around Oban Airport at an equally great cost. Further examples include the need for cargo screening X-ray equipment at Kirkwall and Sumburgh before cargo can be loaded onto 'large' aircraft such as the Saab SF340. Expensive passenger screening X-ray equipment has already been mandated for all of the larger airports in the region although, to date, it has yet to be installed at Campbeltown which handles less than 20 departing passengers a day.

While it is not denied that somewhere along the continuum between Heathrow and Tiree a security fence will become essential (and passenger and cargo screening equipment becomes necessary) such costs when compared with the average throughput of ten departing passengers a day at Tiree are very difficult to justify when – between them – airlines, passengers, the local authorities and the Scottish Government themselves have to foot the bills.

If the UK Government insists that these are proportionate measures to protect national security, then there is surely some justification for the nation as a whole to bear the costs, just as it already does for security policing undertaken on roads, railways and ferries. These costs are seen as an unfair burden on lifeline routes using 'local' aircraft, and puts the industry at a competitive disadvantage with ferries and land modes of transport.

The general consensus is that an airport the size of Inverness probably merits inclusion in the NASP programme, but that the application of the rules by HIAL at that airport is seen as disproportionate to the requirement, with the significant manpower costs of security adding greatly to the cost of flying through the airport. The General Aviation community already enjoys some dispensation from such requirements.

Civil Aviation Authority (CAA). There is no dispute concerning the CAA's application of global rules concerning the runway lengths, safety areas and surfaces concerning the safe operation of aircraft to and from even the smallest airstrip. The main difficulty occurs when the CAA has already allowed a derogation for a particular airfield (such as not requiring a full-length Runway End Surface Area – RESA), and changes are proposed which effectively lengthen the runway. The CAA may then terminate the derogation which effectively negates the point of extending the runway.

Of more concern are the application of Rescue and Fire Fighting Standards (RFFS) at small airstrips which are seen to be disproportionate to the requirement. Examples

quoted include the need for two firemen to meet every scheduled Islander flight at even the smallest of outer island airstrips. On islands such as Foula with a total population of around 40, finding two qualified part-time firemen to meet the six weekly flights is in itself a difficulty, apart from the extra cost that this implies. However, if the flight is declared to be a charter flight rather than a scheduled flight, the firemen are not deemed necessary. Either it is necessary to protect the lives of up to nine passengers, or it is not – the nature of the ticket purchased is not seen as a logical determinant.

Secondly, the number of firefighters required is determined partly by the length of the aircraft, not the number of seats on board. It is anticipated that if the Cessna Caravan replaces the Islander aircraft, its very slightly longer fuselage will necessitate the category of firefighting equipment and number of firefighters to rise, as the aircraft length puts it in RFFS Category 3 rather than RFFS 2, despite both aircraft carrying a maximum of nine passengers.

70 seat buses, 40 seat coaches, up to 1,000 seat trains and varying sizes of ferries are all required to have fire-fighting equipment on board – as are aircraft – but not to have trained firefighters at their en-route stops or their terminals, although they possibly exist at major rail stations and ports. The CAA requirements are that firefighters should reach an incident on the airport or airstrip within three minutes, although there is no such requirement on the local firefighting service if the aircraft should land just outside the airport boundary.

This would not matter, were it not for the fact that firefighting equipment and the payments to firefighters form a major part of the total airfield and airstrip costs.

Many of those consulted were in agreement that the safety costs at all airports should be ‘fit-for-purpose’ and be reasonable when compared with all other risks taken by travellers, notably on travel to and from the airport. It was stated that no passenger had been killed in an accident at any Scottish airport or airfield since the Second World War, although no information was available on the number of lives that may have been saved by the firefighters.

National Air Traffic Services (NATS). NATS increased its rates significantly in 2009/10 as it seeks to redress under-recovery in earlier years. In addition, NATS has been discussing the concept of moving from an en-route charge based loosely on the weight of the aircraft (and benefiting the small aircraft that fly in the region) to a flat per-movement fee for navigation service charges – that is, a Saab SF340 requiring assistance from NATS being charged the same rate per mile as a B747 or an A380.

NATS, in association with the CAA, are also responsible for determining which landing aids should be permitted for UK aviation. The standards of accuracy now available through the use of GPS or GNSS (Global Navigation Systems) ought to be able to bring down the cost of necessary aids at airports for use by aircraft in poor weather conditions or at night. Such usage is commonplace in many advanced nations, and the CAA is slowly permitting its use, initially at General Aviation airfields. For the moment, airlines are still dependent on Instrument Landing Systems (ILS) at major airports such as Inverness and Kirkwall, but the expense of installation is prohibitive. GPS is more accurate than the non-directional beacons (NDBs) available and used at all airports. There is scope for significant reduction in airport costs once GPS becomes accepted.

It should be recognised that NATS for the most part is now a private monopoly Air Navigation Service Provider (ANSP). As such the regulatory oversight should ensure that it does not abuse its position, particularly in areas such as the H&I where its charges have a disproportionate adverse impact.

Many parts of the world allow commercial charter and scheduled operations to operate into airfields without any formal ANSP / ATC cover. In some cases the requirement is for procedural radio calls. In others a reduced level of ATC cover is provided through Flight Information Service (FISO) or even Air-to-Ground radio services (AG). This latter FISO and AG provision is prevalent with UK CAA agreement at a number of UK airfields, including the acceptance of FISO cover at Barra for the scheduled Twin Otter operation. Under a FISO service, there is a trained Officer in the Tower who provides pilots with known information on weather, wind speed and traffic. Such a service cannot however instruct a pilot on a particular course of action or issue a Clearance to say land or take off. That authority is only vested with a qualified Air Traffic Control Officer (ATCO). It does however mean that at airports with very low traffic throughput, the basic information that pilots need to depart or arrive safely can be given but the final authority remains (as in the final analysis it always does) with the pilot, but at much lower cost.

Many UK airports operate with such systems for General Aviation (GA) aircraft and achieve very high levels of traffic in a totally safe operating environment.

This system could be extended to other parts of the H&I region or at specific low traffic times. This would be assisted if it could be ensured that all parts of the region could offer positive radar cover down to say 5000 feet, allowing for the prevailing terrain, and also that the impending carriage of Mode S transponders (which assist in Terrain Collision Avoidance System or TCAS alerts) was made mandatory in the region for all aircraft types, not just commercial and most GA.

Working Time Legislation. The airports in the region are still trying to assess the impact on their costs of proposed new working time legislation, which is threatening to reduce the flexibility of shift manning, and increase overall manpower costs significantly. Airports are already severely constrained in their opening hours – the impact of this legislation will probably worsen the situation for airlines and passengers.

c. Airport runway capabilities.

Runways - current operations. Of the various airports throughout the region, there are few that are not suitable for the current operations. **Out Skerries** in the Shetland Islands suffers from having a gravel and asphalt strip of only 381 metres: as a result, it is often unable to accept a fully-loaded Islander, with the result that some of the four weekly flights from Tingwall have to make a technical stop at the 457 metre strip on Whalsay, and ferry passengers to and from Out Skerries three or four at a time. It is believed that there are no firefighting capabilities on Whalsay at such short notice.

The problems of **Barra** are well-known. Its three marked runways, with a maximum length of 846 metres, are adequate to take a variety of small aircraft including the Twin Otter, but the tidal nature of the location restricts it to no more than seven hours at a time (daylight only) at constantly changing times. This makes it impossible to offer a standard schedule, with a consequent loss of flexibility and an increase in cost for airlines. The selection of aircraft types is also strongly affected by the salt-laden runway surface, as discussed earlier. Several studies have been made for an alternative airstrip on land, but the provision of a 1300 metre runway for the most logical aircraft type, the Saab, is difficult to provide at anything other than a prohibitive cost. The most logical would be converting the road abutting Traigh Mhor to a dual purpose as a short runway.

Barra

The emergence of the Grand Caravan as a potential aircraft type with a much shorter runway requirement, albeit with five less seats than the Twin Otter, may enable previously discarded locations to be analysed once more, notably the widening or paralleling of the road between the existing airport terminal and Eoligarry to the north-east.

Two other alternatives that would be possible for Barra are the provision of pontoons to the south of the current runways for amphibious aircraft to use in the five hour periods when not usable by land-based aircraft, enabling a constant schedule to be offered; or alternatively, the creation of a water aerodrome in sheltered Castlebay with all flights being operated (from Glasgow and Benbecula Airports) by amphibious aircraft, and with the current airfield of Traigh Mhor being closed. Although the CAA is still considering the specific safety requirements of a water aerodrome for scheduled services, the costs are likely to be significantly less than for an equivalent land-based airstrip.

Runways – proposed operations. The main concern is that, if the Islanders are to be replaced by the nine-seat Caravan, many of the island runways will require to be lengthened to around 600 metres to allow fully-loaded aircraft to take off on warm, airless days with wet runways. The runways that will need to be lengthened if at all possible will be:

Shetland Islands – Out Skerries (381 metres), Papa Stour (538 m), Foula (454 m), and Fair Isle (486 m). The runway at Lerwick-Tingwall is sufficiently long at 764 m. Other airports on the Shetland Islands not currently used by scheduled services are Unst (630 m), Fetlar (481 m), Whalsay (457 m) and Scatsta (1,360 m). Scatsta is currently being considered as an alternative diversion airport for Sumburgh – this could enable Loganair to offer higher loads and greater guarantees of operation on days with poor weather.

Lerwick-Tingwall

Orkney Islands – apart from Kirkwall, all current scheduled airstrips would need to be lengthened: North Ronaldsay, Papa Westray, Westray, Sanday and Eday all at 467 m, and Stronsay at 515 m.

North Ronaldsay

Argyll and Bute – Coll and Colonsay have recently been constructed at 500 metres, and would need lengthening.

The cost of such lengthening need not be unduly expensive – what will be needed on most occasions is the provision of extra clearway, a level area with a reasonably firm

surface such as grass or gravel. However, the specific locations of some of the airstrips, such as at Out Skerries, may make this very difficult.

Of secondary concern is the need to enhance the 771 m runway at **Broadford, Isle of Skye** to enable it to accept any aircraft larger than the Twin Otter, which itself may have a limited life. The cost of expansion to 1,300 metres, or the construction of an alternative airstrip at Dunvegan, have been shown to be very expensive, with a minimum estimated cost of some £12 m, equivalent to the recent cost for extending the cross runway at Sumburgh.

An alternative solution put forward during the consultations was to construct a water aerodrome at Portree (closer to the centre of demand for Skye) to test the market for air services to places such as Glasgow and Inverness. If demand greatly exceeds available supply, this would help to justify expenditure at a later stage at Broadford.

Crosswind runways. Many of the airports and airstrips in the region have more than one runway, with cross-wind runways being used by smaller aircraft when wind conditions suggest that the main runway orientation is not suitable or possible. Few scheduled flights are cancelled because high cross-winds make the only available runway unsafe to use. There have been calls from the General Aviation community to improve the surface of the cross-wind runway at Wick.

Proposed new airstrips. Several were proposed at the consultations, including the re-use of existing airstrips at Unst (Shetland Islands), Hoy/Longhope or Flotta (Orkney Islands) for the energy industry, and Jura (Craighouse). Requests were also made for a new airstrip to be built at Fort William, although no obvious site exists.

The alternative of scheduled water aerodromes was also suggested, to provide initial air services to a wide variety of locations along the 'fragile' west coast, from Jura in the south, through Tobermory and Oban Harbour to Fort William, Portree and the coasts of Wester Ross and Sutherland. Initial estimates are that the costs of 'test-marketing' these locations will be low compared to the costs of constructing and running land airstrips.

d. Other airport capabilities.

Runway Lighting. One of the major problems with the operation of scheduled air services in the Highlands and Islands is the very short operating day available in winter (with a minimum of fractionally over six hours in the Shetland Islands) unless aircraft are able to be operated at night and airstrips are lit. All the current aircraft in operation in the region are able to operate at night, and it is expected to be a relatively short time before the Caravan aircraft types are also permitted.

All the HIAL airports are provided with sufficient lighting to enable night flights to be made apart from Barra – it could be a lengthy process before the CAA would sanction the use of the tidal airstrip at night if lighting were to be provided.

It is still to be determined when or whether the CAA is likely to permit the use of lit water aerodromes for scheduled air services, even though such practices currently exist overseas, but the initial expectation is that it will be some time before such practice is allowed in Scotland.

The important point to notice is that not all airstrips need to be provided with the necessary night landing facilities for a whole region to benefit. For example, in the **Shetland Islands**, providing the high frequency service to Fair Isle with lighting would enable improved morning and afternoon schedules to be operated to the other three airstrips. Unst already has a lighting system in place which may need to be upgraded if services are re-commenced.

In the **Orkney Islands**, provided the two key communities of North Ronaldsay and Papa Westray are capable of taking night flights, the whole operation of the network becomes far easier in the winter months, with better schedules on all routes.

In **Argyll and Bute**, the provision of lighting at Coll would solve one of the major problems of this area – taking scholars to and from Oban High School – and would benefit from joint operations with Tiree, which is already lit.

In the **Highland** Council area, Loganair have been calling for improved lighting for Wick Airport. They currently do not operate at night, although the Eastern Airways service from Aberdeen is scheduled to arrive at 20:30 year-round.

Improved Navigation Aids. Apart from lighting, there have also been calls for improved navigation aids to reduce the number of cancelled or diverted flights due to poor weather. The main request has come from Islay, where there have been calls for the installation of an Instrument Landing System (ILS), as has recently occurred at both Inverness and Kirkwall. The cost of up to £7 m is difficult to justify at Islay, where only nine flights were disrupted by weather in the past year. It is worth noting that sea-frets or haar are not safe to land in, unless both aircraft and airport are equipped to CAT III, the highest and most expensive form of ILS.

The expected improvements in GPS technology and its eventual acceptance by the CAA suggest that this is a much cheaper route to follow, although it may take a year or so longer. Recent CAA amelioration has seen GPS approaches initially accepted at six UK airfields including Shoreham and Gloucester.

Taxiways. The level of operation at the majority of airports in the region is such that taxiways are not needed to improve the punctuality of flights. However, calls have been made for the extension of the existing 'half-length' taxiway system at **Inverness** so that it becomes a full-length taxiway. This would enable a greater throughput of flights in the peak hours, and in reduced times taken by airport taxiing as they wait for other aircraft to either land or take off before they can access the main runway. This would also enable the short cross-wind runway to be used for General Aviation aircraft without conflicting with taxiing movements.

e. Airport opening hours.

Aside from overall charges by HIAL airports, this is the area which generates a degree of annoyance with the airlines as they seek to maximise aircraft utilisation. The current opening hours at HIAL airports are as shown in *Table 5* in the Appendix.

In addition, the airports can be made available at other times upon payment of (an often substantial) call-out charge, including those for the air ambulance.

Each of the airlines consulted, as well as individuals, remarked upon how the straitjacket of HIAL operating hours affects their ability to meet legitimate air transport needs. However, it should be noted that Loganair finds matters of crew utilisation to be more important than aircraft utilisation due to the written-down nature of their aircraft. Airlines operating newer, more expensive aircraft will find the restriction of opening hours far more critical.

It may be worthwhile recalling the three goals of HIAL, as laid out in their latest annual report:

> *Our goal is to:*
>
> • *Provide airports that enable air transport to fulfil its essential role in Scotland's diverse regions.*

• Work with stakeholders to develop sustainable air connectivity that supports socio-economic development in Scotland.

• Advise Scottish Ministers on future developments and resource allocation through robust strategic planning and effective collaboration with airport users and stakeholders.

The current operating hours may be designed to meet the agreed scheduled service operations of Loganair, Eastern and others but do not provide opportunities for late changes, extra peak flights, or weekend charters of benefit to the 'socio-economic development' of the region.

Although the declared mission of HIAL is

> *to provide and operate safe, secure and efficient airports which support the communities we serve*

the apparent mission is to minimise financial losses, irrespective of the impact that this has on supporting the local communities. This is most clearly shown in the approach to opening hours.

Although there has long been interest shown in opening Inverness at night for a limited number of cargo and mail flights, which would support the economy of the whole region, there is still no commitment to providing this necessary service, even for only a few hours each night. One of the results of this is that, in order to provide much of the region with the vital air mail services it needs, the Royal Mail has found it necessary to divert its nightly flight from the South into RAF Kinloss, some 20 miles to the east, and then position the aircraft once Inverness has been opened. Discussions with the RAF during this study confirmed that they have been under some pressure to adopt CAA aerodrome standards at RAF airfields where civil operations also take place. They are resisting this on the grounds of cost, control and operational flexibility.

f) Airport Costs.

Because of the operating requirements of statutory bodies such as the CAA and NASP, the costs incurred by airports are often substantial and need to be passed on either to users or to the funding bodies. In addition, the airport operators themselves have been accused of unnecessary expense and lack of initiative in obtaining revenues from sources other than airlines. It has been difficult to substantiate these views, although the HIAL per passenger charge of £14.09 per departing passenger at all of its eleven airports (including a £6.04 security recovery charge) is one of the highest anywhere in Britain. By comparison, the corresponding passenger charge at Aberdeen is £9.97 and at Londonderry (City of Derry) it is £3.33.

A related feature is the cost of aviation fuel, especially at the more peripheral airports in the Highlands and Islands. Loganair advise that the cost of fuel is so high at Sumburgh, that they maximise the amount of round-trip fuel put on in Aberdeen and Edinburgh, even at the expense of payload, turning away cargo and passengers, in order to save on operating costs. Apart from the inconvenience to passengers, it is unsustainable in environmental terms to be burning additional fuel in needlessly carrying around extra fuel to save on purchasing costs. Discussion with bmi about a new London service initiative confirmed that the cost of fuel at Inverness is twice the bmi network average.

g) Airport ownership

HIAL owns and operates the ten largest airports in the region on behalf of the Scottish Government; it also operates Dundee Airport. There is some concern that the diverse range of airport sizes may be causing problems for HIAL, with its one-size-fits-all approach covering Inverness and Barra.

Local councils operate most of the airstrips in the islands and on the mainland – for example Highland Council is responsible for Dornoch and Broadford airfields.

Private companies both own and operate Scatsta and Fair Isle Airports in the Shetland Islands, Plockton in the Highland Council region and a few of the smallest airstrips in Argyll and Bute, including Gigha, Jura and Bute. Certain of the Shetland airstrips are owned by local trusts but operated and part-funded by Shetland Islands Council.

There is some concern that the local councils may be too small to have the expertise necessary to run a number of airstrips, especially those involved with scheduled services. Certain of the Councils could be prepared to see the operation of such airstrips franchised out to existing airport operators. Two of the Councils called for all airports and airstrips to be under common ownership.

In addition, it should be noted that the Royal Air Force operates airfields at Kinloss and Lossiemouth, which are important employers in this sub-region, while there are a substantial number of helipads in private ownership throughout the region. Earlier studies for HIE suggest that helicopters will continue to be vital for the air ambulance service, for search and rescue and for other specialist activities, but are unlikely to become important for normal air services. The service between Penzance and Isles of Scilly is likely to remain the only British helicopter service for some time, unless a service is resurrected between Heathrow and Gatwick.

h) Airports outside the region

There are three main concerns regarding destination airports outside of the Highlands and Islands region – they are the future availability of slots at Heathrow, Gatwick and Edinburgh.

The problem of **Heathrow** is well-known. The number of domestic destinations served from Heathrow continues to dwindle and is now down to just six – Aberdeen, Edinburgh, Glasgow, Belfast, Newcastle and Manchester. Of these, the two most vulnerable are considered to be Aberdeen and Newcastle. The long-standing frequent air services between Heathrow and Inverness were terminated in 1997 when BA transferred the route to British Regional at Gatwick. bmi did operate a daily service between 2004 and 2008, but it was always suspected that the operation was merely to provide work for scarce Heathrow midday slots which would have a long-term value elsewhere. There is no expectation of any additional slots becoming available or being used for a service to Inverness before the construction of a third runway in around 2020 at the earliest.

The imortance to Inverness is that the city has no direct flights to any international destination, and needs links to Heathrow in order to offer inbound business and tourism travellers a convenient way to access the city – providing a slow road link to Gatwick for onward flights is not acceptable in today's world.

As regards all other Highland and Island airports, the link between Inverness and Heathrow is far less vital. None of these communities expect the ability to fly non-stop to Heathrow, and have long accepted that they would need to transfer between flights at their local key centre, be it Aberdeen, Edinburgh, Glasgow or Inverness.

Consultations with communities show that the east coast airports (Sumburgh, Kirkwall and Wick) now regard Edinburgh as their main link to Heathrow, both for London and for onward destinations, although Aberdeen is still often used for such flights. West coast airports from Stornoway to Campbeltown regard Glasgow as their number one transfer airport. None of them need a service from Inverness to Heathrow, although naturally any such option might be used, especially from Stornoway or Kirkwall.

A similar situation exists with regard to the Inverness-**Gatwick** service. When the Heathrow service was transferred to Gatwick, the result was tolerable, because London's second airport still had a good range of scheduled flights to Europe, North America and Asia. This has now changed substantially, with the majority of the North American flights transferring to Heathrow, and many of the European flights being taken over by low-cost airlines which do not provide agreed interline links with the scheduled flights of Flybe. The development of additional network services by Aer Lingus at Gatwick, including Long Haul, would serve to improve the situation.

The Scottish Government has long campaigned for Public Service Obligation (PSO) protection for the Inverness – Gatwick service as it fears that demand for slots will eventually lead to the demise of domestic flights just as it has done at Heathrow. The current recession has reduced such fears, but – with no agreed additional runway capacity anywhere in the South East at any time - the fear may revive. A 'short' route such as that to Inverness cannot compete with intercontinental routes for any scarce slots at Gatwick – sooner or later, the incumbent airline will find itself selling the Inverness slots to an airline with a more valuable intercontinental destination.

So far the UK Department for Transport has refused to concede the need for PSO protection, and there are technical difficulties in acquiring slots to be used for such a service. As a result, there is no protection for the continuation of this vital service. Without either Heathrow or Gatwick, the Inverness region would have to rely on flights to Stansted or Luton, or (flights or) surface travel to Aberdeen, Edinburgh or Glasgow.

There are no major problems with **Edinburgh** Airport, but inexorable growth there will eventually result in the same shortage of slots as currently exists in London. The BAA has currently shelved any plans for a second runway, even though it was recommended in the Aviation White Paper of 2003, and there are suspicions that it may not even be protecting the short cross-wind runway, which would be suitable for all the turbo-prop aircraft currently flying between Edinburgh and the five major airports in the region - Sumburgh, Kirkwall, Wick, Inverness and Stornoway. By the end of the study period, it is quite possible that peak hour flights from Northern Scotland may not be able to access all the slots they need, both for links with the capital city, and also for onward links to London and other world centres. The cross wind runway needs to be protected for operational purposes as it is known that BAA Scotland are keen to use it for other development due to the cost of acquiring other operational land adjacent to but outside the current airport boundary.

Two specific complaints about Edinburgh Airport are: the length of time it takes to taxi and turn round small turbo-prop aircraft, with 40 minutes needing to be scheduled, thus reducing aircraft utilisations and increasing costs; and the poor transfer facilities provided for domestic passengers.

j) Specific Airport Problems - Shetland Islands

The following problems were identified with respect to specific airports in the Shetland Islands.

Sumburgh. The airlines commented on: severe constraints posed by the restricted opening hours; the high cost of aviation fuel; the security costs and high number of security personnel; overmanning generally; the inability to operate the airport with just FISO cover; and the need for Scatsta to be accepted as a diversion airport. The passengers commented on the 'poor' bus service to Lerwick, although the cost is low. The airport terminal is far larger than is needed for the reduced post-oil-boom levels of demand, and there seems to be no strategy for either reducing its size or making better use of the available facilities. An X-ray screening facility is required for cargo if growth in that market is to be encouraged. No major problems were raised that require capital expenditure, although opening the airport for longer hours would probably require additional revenue support.

Tingwall. Capital expenditure of £0.5 mn has already been agreed to improve the condition of a number of the buildings on the airport. No other problems were raised.

Fair Isle. Loganair cancelled its series of flights from Kirkwall when persistent fog for several days caused the airline to have to compensate its passengers under new EU rules regarding flight cancellations. Residents are also concerned about the prevalence of strong crosswinds affecting regularity of service. There were no complaints regarding the lack of winter morning and evening flights – this is 'part and parcel' of island life.

Out Skerries. The operational difficulties caused by the very restricted runway length are discussed above. It may not be feasible to increase the runway length to even 450 metres for the Islander let alone the 600 metres needed for the Caravan, unless an alternative location can be found.

Foula. The difficulty of finding sufficient firefighters was discussed above.

Unst. It is currently used occasionally by the air ambulance.

k) Specific Airport Problems – Orkney Islands

Kirkwall. Extended opening hours, especially on Friday and Sunday evenings to attract inbound weekend break tourism, requiring an increase in revenue support. No other problems were raised, following the recent introduction of ILS and the greatly improved terminal building. Kirkwall would also benefit from having X-ray cargo screening equipment.

North Ronaldsay. Plans are continuing to consider ways of providing a cost-effective system of lighting, which will enable a better spread of its thrice-daily services in winter, and break the log jam currently affecting all inter-island flights.

Papa Westray. The identical needs of Papa Westray suggest a similar lighting solution, providing an improved set of winter schedules to all islands. With these two critical airstrips so equipped it should not be necessary to provide lighting at the other five islands, all of which are better served by ferries.

Hoy/Longhope and Flotta. Either of these abandoned or underused airstrips could be renovated to provide air links for the proposed development of the energy industry, and of the proposed Scapa Flow facility at Lyness on Hoy. The Longhope airstrip was closed in 1993. Flotta has a runway length of some 700 metres, and lies less than one mile from the jetty for the two mile ferry to Lyness.

l) Specific Airport Problems – Western Isles

Barra. The specific problems of Barra's beach strip cause problems for aircraft operation throughout western Scotland, and have been discussed above. Any solution will either involve one of the following:

- an expensive land airstrip construction, probably at Eoligary or by the Aird Mhor slipway;
- the creation of a water aerodrome at Traigh Mhor or Castlebay;
- the purchase of expensive aircraft post 2013 exclusively for this one airstrip;
- the provision of expensive helicopter operations linking Castlebay with Benbecula and (probably) Tiree;
- the construction of a causeway between Barra and Eriskay; and/or
- the termination of all air services to Barra

There was no consensus view on the way ahead.

Stornoway and Benbecula. No problems were raised, apart from the costs of, and appropriateness of, security at these small airports.

m) Specific Airport Problems – Argyll and Bute

Islay. Apart from the regular comments regarding high landing charges and restricted opening hours affecting the ability to attract inbound tourism, the main concerns are with the provision of improved air traffic control facilities such as an ILS. HIAL are said to be committed to improving the ATC situation, but no dates or costs have been given.

Campbeltown. The airport similarly has poor opening times, and is closed from 1740 on Fridays to 0940 on Mondays. Despite having ten firefighters, its RFFS category has to be reduced from RFF3 to RFFS2 during the middle of the day, between the two Loganair flights. It is still awaiting expensive X-ray equipment. Although the MoD is selling the whole of the Machrihanish airfield, the HIAL civil enclave is protected. Call-out and other costs for weekend charters are prohibitive.

Tiree. The requirement for a Security fence has already been discussed. No other problems were raised.

Oban. Although the runway length is adequate for the region's needs, the airport would still benefit from additional navigation aids and lighting, although the need for a curved approach to avoid high ground makes each of these difficult to achieve. In addition, airlines find the charges at Oban excessive, partly caused by the very expensive fire cover required. It may also be required to erect a security fence if larger aircraft are to be permitted to use it. It is recognised that Argyll and Bute Council have limited funds and are already burdened by a 20 year loan for its recent airfield improvements. Although it was noted that there are no cargo facilities, there was as yet no obvious requirement. In addition, NHS responses to the questionnaire cite poor surface links between the airfield and the local hospital.

Coll. Islanders are disappointed that the runway is not long enough to cope with the air ambulance aircraft. There would also be a benefit from lighting to permit scholar flights in winter to take place shortly before and after school hours in Oban. The cost of such equipment would probably be similar to that of North Ronaldsay.

Colonsay. The same runway length issued was also raised here.

Additional airstrips. There were some calls for the privately owned airstrip on Jura to be upgraded, and for an airstrip for the air ambulance service in Cowal, although no obvious location exists. There was a call for Glenforsa's grass airstrip on Mull to be upgraded.

Water aerodromes. There are already water aerodromes serving charters to Oban and Tobermory, and requests were made for these to be made suitable for scheduled services. As yet, the CAA has not determined the requirements for such aerodromes, and the costs can not yet be assessed. Additional such aerodromes could be provided for Jura and possibly other islands.

n) Specific Airport Problems – Highland and Moray region

Inverness. For some time now, the main concern has been in making Inverness available at night for cargo and mail services – full 24 hour coverage may not be needed, and it may be possible to offer reduced fire and ATC cover for cargo movements. Longer opening hours would almost certainly need additional funding. They would also reduce the high call-out costs currently required by the air ambulance. There are also some calls for a full-length parallel taxiway to be available soon, which would also take the pressure off general aviation flights using the cross runway. The other main concern has been the high cost of flying to and from Inverness, plus the high cost of aviation fuel (twice that at many UK airfields), with calls for competition to be provided. The provision of a rail service was regularly raised.

Wick. Opening hours have improved, with the airport now open for some Sunday flights. There are calls for an ILS facility to combat poor weather conditions, but the cost is unlikely to be justified by the low proportion of cancellations and diversions. The acceptance of GPS approaches for commercial operations would help significantly. There are also calls for the cross runway to be resurfaced to benefit long-haul general aviation, and improved high intensity lighting for night-time movements.

Skye. There have been several studies into providing a longer runway at Broadford or an alternative airstrip at Dunvegan, but the costs of around £12m have so far halted further discussion. The current range of options would appear to be:

- To partially upgrade the Broadford airstrip to accept Grand Caravan aircraft with 13 seats or the Twin Otter with 18;
- Fully upgrade the airstrip to 1,300 metres to accept 30-50 seat aircraft;
- Test the Skye market first by constructing a scheduled water aerodrome at Portree.

Fort William. There is some demand for an airstrip to serve Fort William, but there are no obvious locations in this extremely mountainous area. A water aerodrome on Loch Linnhe or Loch Eil may determine the demand for such a service.

Other water aerodromes. Apart from Portree and Fort William, much of the western and northern coasts of the Highland Council region could be suitable for basic water aerodromes serving small markets such as Mallaig, Torridon, Ullapool, Lochinver, Kinlochbervie and Tongue.

4. Airline problems

Apart from the fares charged (see below), few problems were raised in connection with the individual airlines serving the region.

Several comments were made that there was effectively only one airline serving the region – **Loganair** - and that its very close franchise relationship with Flybe on routes to England from all four Scottish airports led to there being almost a monopoly, albeit that there are no restrictions on other airlines competing alongside.

However, few comments were made that Loganair was abusing this monopoly position: the most common comment was that passenger load factors may be kept high to benefit the airline rather than meeting the needs of the communities. As a result, it was often impossible to book flights at short notice, affecting residents, tourists and business travellers alike. The ADS has not helped seat availability but has improved airline economics.

One comment that was received suggested that, on the route between Sumburgh and Aberdeen, the number of cancellations on middle-day flights seemed to be abnormally high, suggesting that low loads were regularly combined onto later flights to save costs – this of course resulted in passengers having to travel earlier to ensure that they were able to reach their destination in time. However, Loganair state that their year-round system-wide passenger load factor is only 62%, giving an average of 12 empty seats on each flight of a SAAB 340.

Similar comments on the lack of accessibility were also made concerning some of the operations provided by Loganair as a PSO contractor, both in the Orkney Islands and from Barra, but this could be considered to be the result of the PSO specifications rather than the fault of the airline.

Of the possible competitors, the strategy of **Eastern Airways** would appear to be to concentrate all its Scottish activities on routes to and from Aberdeen – it could thus choose to offer competition on the routes to Sumburgh and Kirkwall, or increase its frequency to Stornoway. The main concern regarding the airline is that it does not offer interlining facilities at Aberdeen for its passengers from Wick or Stornoway, resulting in higher combined fares, no through ticketing of baggage, and no protection if connections are missed.

Inverness-based **Highland Airways** has a very broad portfolio of routes and operations, and does not expect to offer full scheduled service operations within Scotland – its current PSO operations from Stornoway and Oban appear to be the current limit of its Highland and Island aspirations. There was concern that Highland Airways only resourced its Oban operation to meet the specific schedules – as a result, there was no opportunity to increase the utilisation of either the aircraft or the airport. The airline does not seek to offer interlining capability with other airlines.

Directflight operate the Shetland Islands PSO using the council's aircraft, and are not believed to be seeking to expand their Scottish operations. The main complaint refers to the regularity of their service as a result of insufficient flight crews being available to cover sickness.

The one potential source of competition could come from **Loch Lomond Seaplanes**, who have had a very successful first year of operations from their base at the SECC on the River Clyde. They are seeking to obtain the necessary CAA clearances to operate their 9-seat amphibious Caravan as a scheduled aircraft, and have identified a number of future routes, including Glasgow to Portree. Their aircraft can also operate from normal airstrips with more than 600 metres of runway. The airline is also prepared to consider the 13 seat Grand Caravan to operate long, thin routes in

Scotland that can not be justified using larger aircraft. It is worth noting that all LLS operations operate without public subsidy or PSO protection.

Regarding the flights by **Flybe** southwards from Inverness and other Scottish cities, some concern was expressed that the airline was adopting certain of the low-cost carrier habits, such as charging extra for hold baggage and credit card payments, but was not offering 'low-cost' fares on these trunk routes. However, the codeshare agreement between Flybe and British Airways does permit passengers to avoid many of these extra charges as long as they book via the BA portal.

5. Routes, frequencies and capacity

a. Introduction

The Highlands and Islands are well-served by a network of local scheduled air services linking communities with their regional and national centres, and a range of routes from Inverness connecting the region with other parts of the United Kingdom.

Not surprisingly, given the opportunity to suggest other routes which they would like to have provided, or additional frequencies or capacity on existing routes, many such requests will be made. Many of these will come into the category of 'nice to have' rather than vital, and it has not been possible in this report to identify which if any of these route requests are likely to prove profitable for airlines, or are worthy of receiving financial support.

These requests and suggestions are analysed by council area, studying first local flights, followed by flights to other Scottish destinations and flights beyond Scotland.

b. Shetland Islands

Inter-island routes. These are generally found to be adequate. No additional islands need to be added to the route network. The main concern relates to the provision of sufficient capacity on the routes to meet both summer peaks of tourism demand, and the needs of scholars accessing the Shetland Mainland.

Of most concern are services to Fair Isle, where there are 10 scholars requiring access to Lerwick, and significant numbers of ornithology tourists during migration months and in the summer. This could be made worse by the recent improvements in facilities for ornithologists on Fair Isle.

There was no call for flights to be operated earlier or later in the dark winter months.

Routes beyond. From Sumburgh, there is some call for a second frequency to Glasgow, but opinions were divided on this need. There was also a call for additional direct flights to Scandinavia and other parts of Europe from Sumburgh, following the introduction of the route to Bergen, but it was accepted that there was probably insufficient demand.

Following the cancellation of the Loganair service between Fair Isle and Kirkwall, there some calls for its re-introduction, with the service possibly extended to Wick. Similarly, there was some call for the low-frequency Sumburgh – Stansted service to be resurrected for the inbound tourist market.

c. Orkney Islands

Inter-island routes. There was some suggestion that flights might soon be needed to Flotta or a revived airstrip on Longhope to serve the growing energy and shipping interests around Scapa Flow.

For the existing routes, there are calls for increased capacity on most, especially to cater for the summer tourism peak and to meet short-notice demand – load factors are generally felt to be far too high. It was suggested that this extra capacity should be the result of extra flights, not of larger aircraft.

It was believed that the current aircraft could not provide the capacity necessary for small urgent packages, or cope with the occasional stretcher.

In terms of schedules, the NHS and others would like to see a standardised year-round service with flights to each of the islands departing Kirkwall around 0800 and 1730 daily; this would of course require investment in airstrip lighting. In particular, there were calls for Eday to have flights on more days than the current Wednesdays-only service.

Routes beyond. As with the Shetland Islands, there were requests for a second daily service to Glasgow, although there were some who believed that a faster link between Edinburgh Airport and Glasgow City centre might be sufficient. Similarly, several calls for a service linking Kirkwall and Wick were countered by others who believed that the range of fast ferry services was sufficient. The NHS also called for a direct link between Kirkwall and Lerwick-Tingwall to benefit from enhanced NHS services available there.

There was some concern that the Air Ambulance service had declined significantly following the replacement of the Kirkwall-based Islander by an Inverness-based King Air, and there are calls for the King Air to be re-located to the Orkney Islands.

There was also a demand for improved cargo and parcel services to and from Kirkwall so as not to inconvenience the growing energy industries.

d. Western Isles.

Inter-island routes. Only one specific request was made, and that was for a Saturday service linking Barra with Benbecula, although there were no such calls for a weekend service between Benbecula and Stornoway.

Routes beyond. The most insistent request was for a direct regular service between Benbecula and Inverness – the daily link via Stornoway is considered unreliable due to Highland Airways' preference for carrying cargo only on its service between Inverness and Stornoway. At the time, there were also calls to ensure that Benbecula retained its twice-daily service to Glasgow following the announced withdrawal by Qinetiq from the islands – this withdrawal has now been cancelled.

From Stornoway, most routes are considered acceptable, but there were calls for the new route to Aberdeen to be operated twice-daily, albeit that loads are currently not very high. There is also a demand for a direct or indirect cargo service linking Stornoway with Barcelona for the valuable shellfish industry.

A low-frequency Stornoway – London service at weekends could be useful in stimulating inbound tourism

e. Argyll and Bute.

Inter-council routes. Following the introduction of services from Oban Airport to Coll and Colonsay in 2008, and seaplane flights from the Clyde to Oban and Tobermory harbours, there has been a great re-awakening throughout Argyll and Bute of the possibilities that aviation can bring to a large community scattered across many islands and peninsulas. As a result, many new ideas for services were brought forward.

Regarding the current service from Oban to Colonsay, Coll and Tiree, the regular comment was that there was demand for more than the twice-daily return flights currently operated on just two days a week, particularly at the weekends when tourist demand would add to the local demand, despite an almost complete lack of marketing for the service. There were also concerns that the routes cannot cope with the peak scholar demands.

The most requested additional local route was between Oban and Islay, with specific interest shown by the local NHS. There was some concern that an Islay-Oban service might take traffic away from the existing Islay-Glasgow service, although the latter route is regularly oversubscribed.

Apart from services to Oban, respondents from Islay were also interested in links to Coll and particularly Colonsay, while there was also a call for a link between Oban and Campbeltown.

Routes beyond. The most regular requests were for services to Inverness, particularly from Oban, but also from Islay and Campbeltown. As all Argyll services to the central belt are to Glasgow, but the only service from Inverness is to Edinburgh, current links between Argyll and Inverness are difficult to undertake. Inverness is the focus of all NHS provision throughout Argyll and Bute.

There were also some requests for services from Islay, Tiree, Campbeltown, Tobermory and Oban to Edinburgh (in part in order to make connections for Inverness), plus one for Islay to Belfast, and one for Jura to Glasgow. There were also calls for direct links from Oban and Colonsay to Glasgow.

The Oban airport manager advised that potential passengers, mainly inbound tourists, were asking whether there were any services to the more distant islands, notably Barra, Benbecula and Skye.

On current routes, there were some calls for weekend flights from Campbeltown to Glasgow for the inbound tourism market, and for more capacity on the route from Islay, where little spare capacity exists for the valuable late-booking markets.

Further afield, there is a need to offer a cargo connection from Oban to Barcelona for the shellfish market.

f. Highland and Moray Council areas.

Inter-council routes. There are currently no such routes, although two potential routes – Inverness to Wick and to Broadford – have regularly been studied. There were no calls for either of these routes to be operated because of the adequacy of the road links. However, there were requests for a link between Inverness and Portree, which is some 25miles more distant than Broadford, and much more of a local commercial centre for the Skye region.

If seaplane services become possible, there would also be interest in linking both Inverness and Portree with centres on the Wester Ross and Sutherland coasts.

Routes beyond - Scotland. Apart from the links from Inverness to Stornoway, Kirkwall, and Sumburgh covered above, three other Scottish routes are currently operated from the region: Inverness to Edinburgh, and Wick to Aberdeen and Edinburgh.

The main concern lies with the Wick-Edinburgh service, where a twice-daily service is called for, particularly to offer frequent connections to London, Manchester and other places of importance to the growing energy industry – 30% of the traffic on this route transfers to onward flights at Edinburgh. This demand is likely to grow over

time. The schedules from Wick to Aberdeen are acceptable, although the ability to make interline bookings at Aberdeen would be a valuable bonus.

Regarding potential routes, there are some calls for the Inverness-Glasgow route to be re-instated, but others believe that the road and rail options, plus a rapid link from Edinburgh Airport, meet the need. There is a similar spread of views regarding the re-instatement of a Wick-Kirkwall service.

Looking at new routes from Inverness, there was some demand for Oban, but little for Islay.

There is still a significant demand for flights between Skye and the central belt, either by a land-link from Broadford to Edinburgh or Glasgow (with at least 30 seats and a twice-daily flight) or by seaplane service from Portree – perhaps initially to test the market.

Flights could also be offered from Portree to Stornoway and Benbecula, while other seaplane services could be considered, linking Glasgow with, say, Fort William and Mallaig as well as Portree.

Routes beyond – UK and Europe. The main concern is for guaranteed links to global destinations for Inverness as the major commercial centre of the whole Highlands and Islands region.

Having lost the service to Heathrow, Inverness is now dependent upon the route to Gatwick, which in turn has recently lost much of its interline value with the transfer of many US routes to Heathrow, and the absence of links to such major cities as Paris and Frankfurt. Nevertheless, the main concern is at least to hold on to the current Gatwick service until a better solution is available. Some concern was expressed at the current schedules which do not allow for a lengthy day return facility for business travellers from London in Inverness.

Calls for a frequent service to Heathrow remain strident.

Similarly, as an alternative option, there is substantial demand to re-instate the Inverness-Amsterdam service, preferably at a twice-daily frequency. While the new 13-week Saturday service from Dusseldorf will be useful for inbound tourists, it will offer few valuable transfer opportunities for the business market. Further inbound flights, in addition to those operating for some time from Switzerland, would help the tourism market for the region.

The termination of all flights to Dublin and East Midlands during the course of Summer 2009 was not raised as a problem. However, the Birmingham service is valued, and there were requests for a resumption of a twice-daily frequency.

As with many other sub-regions, there is a call for improved links with onward flights to Barcelona to cater for the potentially large shellfish market.

6. Fares, Rates and Charges problems

a. Introduction

One of the constant refrains reflected both in the responses to the questionnaires and during the consultations is that fares for passengers (and rates for cargo) are far too high for a region of Scotland with below average incomes and a heavy reliance on air (and sea) transport.

The causes are many and well-rehearsed, but in summary they are:

- poor utilisation of expensive airport assets

- poor utilisation of expensive aircraft assets
- insufficient demand to justify cost-efficient aircraft and airports
- the use of small aircraft with high seat-mile costs
- a lack of both airline and airport competition, including fuel provision
- high fixed airport costs to meet regulatory standards

This situation is recognised by the Scottish Government and the various regional bodies, and as a result, a variety of subsidies has been designed to mitigate some of this exceptional cost.

These subsidies are variously paid direct to the airports, to the airlines and to the passengers. In the case of Airport Passenger Duty, the UK Government provides a subsidy to certain passenger groups.

Because of this variety, it has been found necessary to analyse the fares and charges problems by several route groups:

- Public Service Obligation (PSO) routes
- Air Discount scheme (ADS) routes
- Route Development Fund (RDF) and other subsidised routes
- Unsubsidised routes
- Air Passenger Duty

plus further categories concerning:

- Cargo rates and charges
- Competing with the ferries

b. Public Service Obligation (PSO) routes

There are currently six separate Public Service Obligation (PSO) schemes in operation throughout the Highlands and Islands:

- Shetland Islands Council for Tingwall to Fair Isle, Foula, Papa Stour and Out Skerries, plus a summer weekend service between Sumburgh and Fair Isle (currently awarded to Directflight, Islander)
- Orkney Islands Council for Kirkwall to Sanday and/or Stronsay and/or Eday and/or Westray and/or Papa Westray and/or North Ronaldsay (currently awarded to Loganair, Islander)
- Western Isles Council for Stornoway to Benbecula (currently awarded to Highland Airways, Jetstream 31)
- Western Isles Council for Barra to Benbecula (currently awarded to Loganair, Twin Otter)
- Argyll and Bute Council for Oban to Colonsay, Coll and Tiree (currently awarded to Highland Airways, Islander)
- The Scottish Government for Glasgow (Renfrewshire) to Campbeltown, Islay (both Argyll and Bute) and Barra (Western Isles) (currently awarded to Loganair, Twin Otter)

In addition, the Scottish Government has sought to provide a PSO on the route between Inverness and London-Gatwick, but the UK Department for Transport has

yet to agree this operation. Its main difficulty lies in the fact that there is currently no mechanism which can provide suitable landing and departure slots at this slot-constrained airport.

The Scottish Government would prefer each local council to be responsible for its own PSO, as it will be far closer to the needs of its residents. However, it has taken responsibility for the routes from Glasgow, as the airports are located in three separate council areas. It is believed however that the Scottish Government pays for around two-thirds of the subsidies for the remaining PSO operations, with around one third remaining the responsibility of the local authority.

Each Council is able to draw up its own set of routes, detailed schedules and fares, and to provide a high or low subsidy as it wishes. PSO licences may now be offered for periods of up to five years, following a recent updating of the relevant EU legislation (EC 1008/2008). They may also be awarded for links between any two community airports – they do not both need to be in the United Kingdom.

As a result, some awarding authorities have settled on a standard fare applicable to both ends of the market, while others such as the Orkney Islands have granted significant reductions for the residents of the Outer Islands. In addition, Orkney Islands have agreed lower fares for the two most remote islands (North Ronaldsay and Papa Westray) than for the other four because of their almost total reliance upon aviation, whereas the other four islands have higher fares as they benefit from frequent (similarly subsidised) ferry links.

As a general rule, the franchises require the tendering airlines to provide their own aircraft, but in the case of the Shetland Islands, the local council provides the aircraft and asks airlines to bid for their operation.

As a result, the level of subsidies to be provided by each of the awarding authorities is difficult to predict. The airline costs are also affected by the level of subsidy granted to each of the airports involved. HIAL is subsidised by the Scottish Government by around £25 m pa to reduce the costs for all services, including PSOs, and the local councils are responsible for determining the level of grant aid they may make to their own airstrips. The one PSO airport that is not subsidised is Glasgow, while Fair Isle is also independently operated although it receives a grant from Shetland Islands Council.

It should be noted that the earlier report by the Aviation and Travel Consultancy (A&TC) in 2004 recommended the wholesale adoption of the PSO scheme for all domestic routes operated to or from airports in the Highlands and Islands, in order to effect a one-third decrease in the cost of air fares, with an estimate of a maximum cost to the Scottish Government of around £12 m pa. This scheme was rejected in favour of the Air Discount Scheme, which is discussed below. There were still some responses to the Consultation which are in favour of this general concept, albeit affecting only a number of these routes.

With Government bearing more than 50% of the cost of air services in the region as user (health boards / doctors / patients, for education, or other Government / community purposes), via subsidy to HIAL and local authority airports and the ADS / RDF, and some PSOs, it is surprising how little say that the “paymaster” has on the scale, frequency, network, schedules and prices charged and operated across the H&I air service network. The Scottish Government and the communities served need to ensure that they receive best value from the proposed expenditure in terms of services, network, schedules and fares.

Perhaps surprisingly, when compared with other route groups, very few adverse comments were received regarding the level or structure of fares on PSO routes. This may not be surprising when it is realised that the Papa Westray return fare to

Kirkwall for an island resident is £14, and is subsidised by around £40. Between Barra and Stornoway, it was remarked that the airport taxes and charges are greater than the subsidised fares.

The one relevant comment received from a PSO airline was that their specific PSO paid for a specified minimum number of rotations on a route, at a very low average fare. As a result of the overall cost agreed, the airline more than covers all its costs on this operation. The airline is permitted to operate additional flights on these routes at its own discretion. That is, if there is sufficient demand to justify an extra daily frequency, they may operate it without additional subsidy. However, the average fares it can charge are so low that it needs to achieve an 80% load factor in order to break even on that extra rotation, even on marginal costing. As a result, there is a strong disincentive to meet increased demand brought about by the low fares, and this will affect the ability of the location to grow beyond what has been predicted.

The other problem, raised by most of the PSO airlines, is that no airline can justify the purchase of newer aircraft to operate on PSOs, as other tenderers would undercut by using the oldest possible aircraft. The PSO might have to specify a particular aircraft type, or a minimum service standard unachievable by elderly aircraft.

Other problems arising from the operation of PSOs include:

- Differing concepts of the role of, and subsidy levels available for, PSOs might make it difficult for separate Councils to work together
- Some routes which could be suitable for PSOs would involve two different Councils, for example Kirkwall to Wick or Fair Isle, and Oban to Barra.

c. Air Discount Scheme (ADS) routes

The Air Discount Scheme was introduced by the Scottish Government in May 2006 for a trial period until March 2008. A detailed study of the Scheme by Halcrow reported in late 2007 and the ADS scheme has been extended.

The Scheme meets the requirements of the EU's 'Aid of Social Character' mechanism. Its main aim is to make air services affordable for remote communities in the Highlands and Islands, improve connectivity to Scotland's key population centres and facilitate accessibility and social inclusion.

The ADS provides a 40% discount on the core air fare on eligible routes for signed-up members who are resident in the Western Isles, Orkney, Shetland, Islay and Jura, Caithness and North-West Sutherland. The ADS is applicable to scheduled flights to and from any airport within the eligible areas to one of the four main Scottish airports – Glasgow, Edinburgh, Aberdeen and Inverness – as well as to other airports within the eligible areas.

The ADS does not apply to people who work, but do not live, in the eligible areas. National Health Service funded trips are also excluded. Some routes are not included as they are served by PSO air services.

The Halcrow study found that some 143,000 single flights were made by the 67,000 registered members of the scheme, and calculated that around 18,000 of these journeys had been generated by these lower fares, and a further 48,000 journeys had been diverted from surface modes, normally ferries. The overall increase in air journeys by this subset of passengers was therefore from some 77,000 to 143,000, or plus 85%. Most of this increase was for leisure purposes – business travel by the members increased by far less. The maximum loss of traffic by the ferry operators was some 8% on the routes to the Orkney and Shetland Islands.

The Halcrow report recommended a continuation of the scheme, but decided against increasing the eligibility criteria of the scheme to a wider market – relatives of scheme members, all Scottish residents, or even all travellers – or to additional routes, or to increasing the level of discount. The only negative aspect of the scheme was the low take-up of membership in Islay and Jura, and in Caithness and Sutherland, which could be addressed by additional marketing.

Despite the majority of respondents being enthusiastic about the merits of the scheme, time and again the same comments were raised – about the inability of the scheme to be available to friends and relatives on the mainland who wished to visit the remote areas, or indeed all potential travellers, as this could increase the benefits for inbound tourism and business travellers. This would be similar to the RET scheme being trialled on the ferries (see below). However, it was accepted that this would put even greater pressure on the load factors, with no guarantees that additional capacity would be provided – although it is possible that a dramatic increase in market size could justify larger aircraft with lower costs per seat.

One respondent felt that, as the RET experiment was being trialled on routes to the Western Isles, Coll and Tiree, a 'two-way' ADS scheme could be trialled on routes to the Northern Isles.

Many felt that the PSO schemes were generally fairer – a mainland Scotland passenger to Barra would pay a noticeably lower fare than one flying to Benbecula, whereas a resident of the Outer Hebrides would pay more for their Barra-Glasgow ticket than for one from Benbecula.

It is acknowledged that, to be affordable in both directions, it would probably require a reduction of the discount available to residents in the remote areas – perhaps from 40% off the core fare to 25% or even less – but this would probably not be welcomed.

There is some concern over the setting of the core fare by Loganair and Eastern Airways – there would appear to be no control by the Scottish Government of these calculations, despite its discounts being closely set by these fares – and there is also concern that the core fare excludes the airport charges levied by HIAL and others. At some £28.18 on a round-trip between Inverness and Kirkwall, this is still a very significant charge to be met by each ADS member. One respondent noted that the RET scheme being trialled on ferries (again, see below) incorporated the port charges into the basic pre-discount fare.

Other comments compared ADS unfavourably with PSO, in that PSO routes and frequencies are guaranteed, but there is no such guarantee for those vital routes offering only ADS. Others suggested that a fairer way of administering the ADS scheme would be to increase the subsidies to HIAL so that all passengers would benefit, albeit by a lesser amount.

Some references were made to the lack of low fares being available for non-Members, with many having to pay the full core fares, possibly as a result of the high load factors being experienced. The full return fare from Glasgow to Stornoway is some £300.

One respondent was concerned about the impact the ADS scheme was having on the economics of ferry services, notably that linking Kirkwall with Aberdeen, while another asked if a similar scheme could be made available for air cargo exports from the same remote locations.

d. Route Development Fund (RDF) and other subsidised routes

For a while, the Scottish Government, in association with Highlands and Islands Enterprise, administered a scheme by which significant financial assistance was given to airlines to bring forward routes which would lose money initially, but which were considered to have good long term prospects.

Routes which were helped to start operating from Highlands and Islands airports and which still continue are:

- Stornoway to Aberdeen
- Inverness to Manchester
- Inverness to Birmingham
- Inverness to Belfast

The Stornoway-Aberdeen route is also covered by the ADS scheme.

Other routes which were initially assisted but which have failed to survive include:

- Inverness to Stockholm
- Inverness to Liverpool
- Inverness to East Midlands
- Inverness to Heathrow

Although the scheme has on balance been successful, changes in interpretation of the relevant EU law mean that such assistance now has to be reconsidered.

In a parliamentary response on September 13th 2009, the relevant Minister, Stewart Stephenson wrote that:

> *The European Commission's guidelines substantially restrict start-up aid to airlines in a number of ways, including the following: Aid can only be given to EU registered carriers operating on intra-EU routes. No intercontinental services can be supported; For routes from airports with between five and 10 million passengers per annum (including Glasgow International and Edinburgh Airports), aid would only be considered in duly substantiated cases, in particular where an airport is located in a disadvantaged region; Destination airports would have to have under five million passengers per annum, and Support may not exceed an average of 30% of eligible costs over the period supported. Aid is restricted to allowable non-recurring start-up costs and cannot cover aeronautical charges.*

This would appear to allow financial assistance to be given for any route from any Highlands and Airports to any other, including those with total carryings of over 5 mppa, such as Glasgow or Edinburgh. The restriction to 30% of non-recurring start-up costs is however far more of a restriction and may result in insufficient funds being allowable to tempt an airline to start any new services.

Few problems appear to have occurred with regard to the RDF routes still operating. One comment was that the Aberdeen-Stornoway service might have a better operating pattern and lower fares if it had instead been the subject of a PSO.

In passing, it should be noted that HIAL continues to offer significantly reduced landing fees and passenger charges of up to three years for any airline starting a new route from any of its airports. This enables the airline to offer lower fares during the start-up years, although it provides no benefit to passengers in later years – the benefit comes from routes and frequencies becoming available which may otherwise have not been started.

e. Unsubsidised routes

None of the routes from Inverness to the rest of the UK now benefit from any reduction in fares as a result of Government or local authority subsidy, except in so far as all routes to and from the airport benefit from the overall subsidy given to HIAL to operate the airport.

It was commented that fares on some of these routes appeared to be excessive – specifically mentioned were the costs of flying between Manchester and Sumburgh via Edinburgh or Aberdeen, of Europe to the Shetland Islands via Edinburgh, and Inverness to Gatwick (Flybe)

All routes within the Highlands and Islands region, and routes to other Scottish cities, benefit from the application of PSO, ADS or RDF except for the one route between Inverness and Edinburgh. There were no comments about the high fares on this route, because of the wide range of alternative modes available at lower cost.

f. Air Passenger Duty (APD)

Airport Passenger Duty (APD) is due to increase from £10 per round trip for domestic and European flights to £11 later this year. Currently it is not payable on flights from any airport in the Highlands and Islands, nor is it payable on any aircraft with less than 20 seats (including the Twin Otter and the Islander) but it is still payable on Saab 340 flights to the region from other airports, notably Aberdeen, Edinburgh and Glasgow.

g. Cargo rates and charges

Although most complaints are concerned with the cost of passenger travel, the economy of the region is also dependant upon the ability to import and export goods by air, and excessive rates and charges bear heavily upon this sector.

One respondent recommended a ‘cargo ADS’ subsidy for outbound cargo and packages, while others remarked on the exorbitant rates being charged for inbound freight.

7. Competing with the ferries

a. A need for both air and ferry services

Although this study concentrates on the specific requirements of aviation in the Highlands and Islands region, it is necessary to reflect on the complementarity of all transport modes, and particularly of ferries. On a very few routes, such as Inverness to Edinburgh, and Campbeltown to Glasgow, competition is also provided by road and sometimes by rail, but these are the exception.

What is most important is not that one mode or the other takes the majority of the traffic, but that each mode concentrates on what it does best. For example, there are some island communities around the coasts of Scotland that are most unlikely ever to receive air service because of their overall market size and/or the impossibility of providing a suitable airstrip or anchorage or the extremely short sea crossings involved – the four Small Isles and Iona are probably the only locations remaining that would benefit from the ability to offer air services. In these examples, ferries are required to meet all passenger, vehicle and cargo access.

For most other communities there is a choice between air and sea, and both are valuable. While ferries can provide all the access requirements of island

communities, air services normally add an additional service meeting some of the needs of passengers (without their cars) and small items of freight.

Generally, it is assumed that most passengers will elect to travel by the cheaper mode (normally the ferry) while those with urgent itineraries or high valuations of time will pay extra to travel by air. Altering the ratio between the fares on the two modes will alter the ratio of passengers electing to use each mode.

Several other features that can impact on modal choice include:

- the regularity of each mode, particularly in winter
- the quality of the aircraft and the vessel
- the detailed schedules and frequency of each mode, and
- the location of the airport or ferry terminal in relation to the centres of demand

One example quoted was the need for the Shetland inter-island air links to fly to Tingwall rather than Sumburgh, in order to connect better with the deep-sea ferries leaving Lerwick.

b. Ferry infrastructure costs

One of the important aspects in determining the increasing ability for aviation to become accessible in the more remote areas is the infrastructure cost of providing additional airports and airstrips.

The same is true for improving the quality of ferry operations. A figure of £12 m was given as being the cost of providing a ro-ro pier for Papa Westray, with its population of around 80 – this is approximately the same cost as the provision of an airport for the 8,000 residents of the Isle of Skye.

The cost of providing pontoons at Tobermory for Loch Lomond Seaplanes was closer to £40,000, and these could be used by local vessels as well.

Although it is acknowledged that improved ro-ro piers will speed up the use of ferries, and allow more modern vessels to be used, it is important to assess on level terms the overall economic benefit of infrastructure improvements for each mode.

c. Vessel costs

A similar exercise needs to be made comparing the lifetime ownership costs of ferries and aircraft, with ferries regularly exceeding the purchase costs of small aircraft of between $2 and 5 m each.

One problem that airlines have in applying to operate PSO franchises is that the aircraft may have to be amortised over a period of no more than five years. The same is true for ferry operators now that almost all ferry services in the region are time-limited franchises. This has been solved by separating vessel ownership from vessel operation, with a range of operators now bidding to operate each of the franchises, but each relying on operating the same vessels. This enables elements of true competition to be obtained.

A similar approach to aircraft ownership may help to resolve current intractable problems in aviation, enabling more modern aircraft to be acquired and operated, using equipment purchased by the Scottish Government.

d. Appropriate vessels

The example of ferries across the Pentland Firth was raised during the consultation, where the subsidised Scrabster – Stromness ferry is in competition with privately-funded services between St Margarets Hope and Gills Bay, and also between Burwick and John o' Groats. It was advised that the larger vessels of the Stromness ferry receive a subsidy of some £10 m a year to compete with unfunded services. A small proportion of that sum could be used to offer a different form of competition in the way of an air link between Wick and Kirkwall.

A separate example was given of ferries to the Western Isles which have an excess of passenger capacity, but insufficient capacity for vehicles. The costs of 'getting it wrong' are substantial and are borne eventually by the Government. The current review of ferries being undertaken for the Government may resolve that situation by re-allocating the vessels to different routes – in aviation, airlines rapidly increase or decrease frequency, or change aircraft type if a similar mismatch occurs.

e. Comparable fares – RET, ADS and PSO

Of most pressing concern to the aviation industry in the Highlands and Islands at the moment is the current trial of RET (Road Equivalent Tariff) on routes to Coll, Tiree and the Western Isles from the Scottish mainland. From October 2008 to September 2009, an experiment is being conducted with greatly reduced ferry fares, for both foot-passengers and vehicles, based on the equivalent costs of travelling the same distance by land. The current subsidy for ferries to the Western Isles is said to be some £12 m a year.

RET fares are available to all passengers, of any residence, and take no account of any additional port charges. The subsidy is being provided by the Scottish Government which will assess the net benefits to the local economies at the end of the trial.

At the same time, the Government is providing PSO subsidies on Glasgow to Tiree and Barra, Argyll and Bute Council is providing subsidised flying from Oban to Coll, and the Air Discount Scheme is providing a 40% discount for all Western Isles residents flying to Inverness, Edinburgh and Glasgow from Benbecula and Stornoway.

The Halcrow study showed that in 2008, the ADS air services abstracted many passengers from the ferries to the air services. Now, it is believed that some routes – in particular Stornoway to Inverness – are suffering from a reverse switch back to the ferries, which in turn are struggling with significant levels of turnaway, including many potential tourists with their vehicles.

Although the trials will no doubt prove valuable, they could put at risk vulnerable air routes such as Benbecula to Glasgow.

Being available to all, the RET experiment may prove a valuable guide to the possible impact of allowing ADS to be used by all passengers.

The nature of the ADS and RET trials are important, but they must be kept at such levels as not to destabilise the two separate modes.

g. Share of government funds

Finally, the Scottish Government will need to take account of the current ferries review and reviews such as this present study, as well as the RET and ADS experiments, in deciding the optimal distribution of scarce resources amongst competing transport modes. Road and rail will also be asking for significant

investments, including a portion of the £35 bn slated for improved rail links to England.

It is necessary for the aviation stakeholders to ensure that the aviation industry in the Highlands and Islands receive an appropriate share of that expenditure, so that overall the Government achieves the maximum benefit for each pound spent.

In the final sections of this report, a review of the most important options is undertaken, followed by recommendations to HITRANS and ZetTrans of the most cost-efficient schemes available to the regional aviation industry.

F. Options and assessment

1. Introduction

In this section of the report, the major on-going problems are analysed, particularly those where an injection of capital expenditure or revenue support could be expected to yield significant benefits. The assumption is made that most if not all of the additional investment will be sought in the first instance from the Scottish Government, but that it in turn might be able to apply for extra grants from Westminster and/or Brussels

Each problem area identified is analysed first on the assumption of a 'do-nothing' scenario, with a range of alternative options then being assessed.

Those problem areas which might be solved with significant additional capital investment are analysed first, followed by those schemes which might require revenue assistance, and finally those problems where the active support of the Scottish Government might be sought, but which will not involve major financial support.

2. Options that could require major capital investment – Airports and Aircraft

The major problems in this area cover:

- increasing assistance to HIAL
- capital investment in Barra
- capital investment in Skye
- capital investment in the minor airstrips
- acquisition of replacement aircraft

3. Increasing Assistance to HIAL Airports

a) Do nothing scenario

The historic assistance given to HIAL by the Scottish Government is recognised. In recent years, this has averaged some £25 m each year, covering both capital improvements and a contribution to running costs, in order to reduce the charges that the airports body makes to airlines and other users of its facilities. Leaving aside the special assistance provided to buy out the Inverness Terminal PFI, major capital expenditure has averaged some £10 m a year over the past decade.

Although no detailed list of future capital requirements has been made available to the study team (and the latest HIA Strategic Plan dates to 2007 with limited detail on future capital investment), continuing maintenance of the infrastructure – particularly terminals, runways and necessary navigation facilities – will remain at present levels for the foreseeable future. The study team is not aware of any major upcoming infrastructure cost comparable with the recent lengthening of Sumburgh's cross runway, and the installation of ILS at Inverness and Kirkwall. It is aware of some issues about deterioration of the runway and taxiway surface condition at Stornoway, which was needing to be addressed. In addition, changes in CAA / EASA aerodrome standards legislative requirements and those of the HSE, will inevitably increase the need for future continuing remedial and upgrade investment.

b) Possible major improvements

Apart from the situation regarding Barra, which is discussed in detail below, the one HIAL capital improvement which may become necessary in the coming decade is the provision of a full-length parallel taxiway at Inverness, in order to improve the capability of the airport to handle increasing number of air transport movements at peak times. It would also enable the airport to retain its current crosswind runway to accommodate growing numbers of general aviation flights. It is expected that HIAL will be able to advise HITRANS of the approximate cost of such an improvement.

c) Possible minor improvements.

One feature that would benefit air cargo services, and as a result, local economies in the Highlands and Islands would be if HIAL were to provide (NASP-required) cargo screening X-ray equipment at the major airports. This would allow the Saab 340A cargo aircraft to be used for both imports and exports. The most important airports for this facility would be Sumburgh, Kirkwall and Stornoway. Government grants for this additional equipment should be repaid by an improvement in the local economies by helping exports of shellfish and other products.

d) Recommendations

That the Scottish Government continues to fund the regular capital projects required by HIAL, averaging £7-10 m a year, normally for repairs and minor improvements, such as the provision of cargo screening machinery; and is prepared to pay for a full-length taxiway at Inverness when needed

4. Capital Investment in Barra

a) Do nothing scenario

As discussed in detail above, the 'do-nothing' scenario for the HIAL airport at Barra is likely to result in the closure of the beach airstrip, and the termination of all air services to this community of some 1,300 people. In 2008, the airstrip handled over 10,000 passengers, or four round trips per resident.

Loganair have made it clear that they are not prepared to bid for the Glasgow-Barra and Barra-Benbecula PSOs when they are renegotiated in 2013. Their own Twin Otters will no longer be economic to run on these routes, while the terms of the PSO are unlikely to be sufficient to tempt them into purchasing two new, more expensive Viking Twin Otter 400 aircraft solely because of the needs of this route. Similarly, Highland Airways have stated that they will not be bidding for this PSO, which will also cause problems for the linked Glasgow-Tiree and Glasgow-Campbeltown routes.

As considered earlier, without the continuing availability of the Twin Otter, the options of alternative aircraft are remote.

Even with the Barra PSO operation in 2008/09, and a revenue of £16.60 per passenger, HIAL only covered 24% of its £683,000 operating costs from revenue – the probability is that the airstrip would be made available to private interests or to Western Isles Council if there were no prospect of continuing scheduled services.

b) State acquisition of two Viking Twin Otters

Acquisition of two Viking Twin Otter 400 aircraft in 2013, or shortly thereafter, would enable the current operation to go on indefinitely – that is, a daily tidally-determined service, with second frequencies operated by the second aircraft when tidal conditions permit. It would not enable any improvement in the current operation, or in operations to Campbeltown and Tiree.

Loganair have said that they are not prepared to go down this route, but would be prepared to operate the aircraft if purchased by the Scottish Government through one of its agencies.

Although such a move would result in no additional airstrip costs, the full costs of acquiring a fleet of two aircraft is assessed at about $9 m. However, apart from cost issues, there could be two major problems. Firstly, the order book for this new aircraft is filling up rapidly, and airlines or other purchasers may need to act quickly to guarantee delivery by 2013 or 2014.

Secondly, and potentially far more costly, it is anticipated that the CAA / EASA will require a full certification process for this aircraft before it is added to the UK / European register. This will inevitably take much time and expense, and the potential purchaser may well wish to wait for the conclusion of such discussions before putting in an aircraft order; possibly leading to an extra delivery delay. Even then the new Viking Twin Otter- 400 is not expected to achieve the ideal Performance "A" certification standard.

c) Construction of a full-length (1300 metre) runway on Barra

Loganair have stated that, because of the operating economics of a large fleet of Saab 340s compared to the high costs of operating just two Twin Otters, the overall operating costs of a 33 seat Saab 340 on the route from Barra to Glasgow would only be a small increase compared to the 18 seat Twin Otter, resulting in noticeably lower costs per seat. However, the aircraft needs a runway of some 1300 metres compared to the 700 metres or so available on the beach strip.

Earlier studies of the whole of Barra found no obvious location for a runway of this length, although it might be feasible to construct one at the southern end of Traigh Mhor, near the Aird Mhor slipway for the Eriskay ferry. However, initial costings for a runway on this uneven area of excessively hard rock were considered far too expensive for the overall benefit to the community.

d) Construction of a mid length runway (800 metres) on Barra

The same set of studies concluded that it ought to be possible to construct an 800 metre runway on or alongside the minor road linking the hamlet of Eoligarry to the rest of the Isle of Barra. The site is adjacent to the current airstrip, it would be able to use the existing terminal and fire station, and it could be constructed relatively inexpensively on a level area of sand.

An 800 metre runway would be usable by the Twin Otter and a small number of other similar aircraft. It would also be usable by the 13-seat Grand Caravan, which has yet to be permitted to operate under Instrument Meteorological Conditions (IMC), but this could be expected to be permissible by 2013. Such a runway would permit a standard twice-daily operation offering 26 seats compared to the current daily input of 18 seats, at varying times. It would also enable a twice daily frequency service to be operated to Benbecula to connect with the flights to Stornoway. The lack of any tidal constraints would similarly enable a third frequency to be operated during the peak demand times.

The cost of an 800 metre runway alongside the existing airport terminal would be relatively low, and would not be much longer than those on most of the outer islands further north. Detailed analysis of the operating characteristics of the Grand Caravan would probably suggest that a runway of around 700 metres would be sufficient.

e) Construction of sheltered pontoon area at Traigh Mhor

Following the introduction of amphibious services between the River Clyde and points in Argyll, and the expected authorisation of such flights on scheduled service

year-round well before 2013, an alternative option would be to construct a sheltered area adjacent to the existing airport which could be used by amphibious aircraft during the six hours of high tide. Because of the depth of the beach at low tide, the location of a suitable place for a pontoon and jetty close to the airfield is not obvious – the most suitable location would be the slipway and jetty used for the Eriskay ferry, some three miles from the airport terminal. Apart from a narrow gap directly to the north with a maximum fetch of ten miles, the location is well-sheltered with a maximum fetch of some two to six miles.

This would enable an amphibious aircraft to operate from the beach strip for around six hours each tide, and the nearby water aerodrome for six hours each tide, enabling the airline to operate a consistent daily service. Currently only the nine-seat Caravan is on the British register and certificated for amphibious operations.

It is not yet clear what safety and security requirements will be needed to satisfy the CAA and the National Aviation Security Programme, which could add significantly to the minimal cost of pontoons and links to jetties. It should be recognised that such programmes are already less onerous for aircraft on charter operations

f) Construction of sheltered pontoon area at Castlebay

Alternatively, the residents of and visitors to Barra might prefer a consistent amphibious service into Castle Bay itself, close to the main settlement, compared to the nine mile journey from Traigh Mhor. The maximum fetch is three miles, guaranteeing calm waters on the majority of occasions, while the pier for the Oban and Lochboisdale ferries is in the centre of Castlebay.

A standardised operation of flights could be scheduled, and it would enable the current airstrip to either be closed, or kept open as a private facility for light aircraft. Two flights by the 9-seat Caravan would be needed to replace each Twin Otter flight.

Loch Lomond Seaplanes converted Tobermory Bay into a water aerodrome with pontoons that cost £40,000 – minuscule costs compared to the cost of constructing an airstrip.

For the moment, it is not possible to guarantee scheduled flights in all weathers, but it is expected that this problem will have been solved by 2013, as it has already been solved elsewhere in the world.

g) Construction of helipad at Castlebay

An alternative way of solving the problem of expensive replacement aircraft and airstrips could be the construction of a helipad in or close to Castlebay, and the operation of scheduled helicopters linking Barra with Benbecula and – it is suggested – with Tiree, connecting with a larger aircraft operating between Tiree and Glasgow.

Although the costs of helipad construction are low, the cost of helicopter flights is high, probably some four times more expensive per seat than fixed wing aircraft. The cost of a helicopter service to Tiree would be only around one third of the cost of a service to Glasgow, and flights could be scheduled to connect with the Tiree – Glasgow operation, providing sufficient traffic to justify a twice-daily service by Saab 340. The end-to-end service would be slower than the current operation, but would operate twice daily at consistent times, and from the heart of the major centre. A helicopter with a capacity of around 15 seats would be required.

h) Recommendation

It is recommended that the Twin Otter operation be allowed to terminate in 2013, to be replaced initially either by (normally) two Grand Caravan operations at low tide, or by a twice daily operation by amphibious Caravan direct to Castlebay, subject to them being granted type approval by the CAA. Studies should continue into the

construction of an 800 metre runway at Eoligarry, to augment the existing tidal beach-strip which would remain available for general aviation.

This would then permit the operation of the Saab 340 on all flights to Campbeltown and Tiree.

As a contingency plan, an order / option should be placed for two Viking Twin Otter - 400 aircraft to enable the current beach operation to continue if SEIMC is not accepted or there are other constraints. These should be delivered in a 2013 / 2014 timeframe. The level of demand for such aircraft, with recent announcements of sales to Libya and Russia, suggests that such options could be sold on, should they not be required.

5. Capital Investment in Skye

a) Do nothing scenario

There is believed to be a significant level of potential air passenger demand to and from the Isle of Skye, predominantly from the central belt, but also by tourists from further afield. There may also be some demand for a service to Inverness.

The existing runway at Broadford is some 771 metres long and 23 metres wide, and is supported by the most basic of facilities. Although used by general aviation aircraft and the Islander (when an air ambulance), it is not currently suitable for any other passenger aircraft. Various studies have been made, but it is unlikely that any satisfactory air service can be operated from the current airstrip.

The airfield is not well-located for the Isle of Skye as a whole – a better location would be much closer to the commercial centre, Portree.

Under the do nothing scenario, the existing airstrip will remain unused, and the potential benefits to the Skye economy will remain undeveloped.

b) Extension of existing Broadford Airstrip to 1300 metres

Studies have been made of extending the existing Broadford airstrip to 1300 metres to permit the operation of the 33-seat Saab 340 direct to central Scotland. Through modifying certain CAA regulations, it has been found just possible to construct such a strip within the CAA guidelines. It would require the filling in of gullies at either end of the airstrip and a small extension onto the beach, and has been costed at around £12 m.

c) Extension of the existing Broadford Airstrip to 800 metres

There is no difficulty in extending the airstrip very slightly, even though – in terms of runway length – it already meets the operating requirements of the Twin Otter; although there is some concern that the present runway width of 23 metres is too narrow, and that 30 metres should be provided, it does meet the CAA Code 2 visual / instrument runway criteria. The main concern is to meet the need of basic terminal facilities, including a fire station.

Loganair has said that it would be prepared to operate the 18-seat Twin Otter to and from Broadford if these improvements were made – at least until 2013. The 13-seat Grand Caravan could also be operated, although both of these aircraft might be too small for the available market. Frequencies could be increased, but larger aircraft can normally offer much lower seat-mile costs than these smaller aircraft.

The cost of upgrading Broadford to this level is of the order of some £4 m and would enable a very basic network of services to be operated.

d) Construction of alternative 1300 m airstrip at Dunvegan

An alternative which has been studied is an alternative airstrip closer to Portree which would be able to accept the 33-seat Saab. Many sites were examined, but only the relatively remote location of Dunvegan on the west coast of Skye appeared to offer the possibility of an unrestricted runway.

However, the site is still some 12 miles from Portree (Broadford is 25 miles distant) and not near any other major centre. The cost is likely to be in the region of £15 - 20 m.

e) Provision of sheltered pontoon area in Portree

There is a very sheltered inner part of Portree Bay within a mile of the town centre which has already been investigated as a potential landing area by Loch Lomond Seaplanes with a view to operating regular services with the nine-seat amphibious Caravan from the River Clyde

The cost of providing pontoons is minimal, while the CAA does not require much in the way of safety equipment or facilities for charter flights. Such costs might increase for scheduled flights, but costs will be minimal compared to the costs of airfield construction.

f) Recommendation

It would seem sensible for HITRANS to seek government grants to provide the necessary infrastructure at Portree to enable Loch Lomond Seaplanes to test-market routes from Portree to both Glasgow and to Inverness Airport.

This would be the initial step. Once permission is granted for single engine IMC flights to be operated, scheduled services can commence, with any excess demand being met by increased frequencies.

The level of demand my be such that the need for an airstrip capable of taking larger aircraft becomes apparent, and further studies could then be made at a later stage of both Broadford, possibly for an 800 metre runway, but more probably of a 1300 metre runway, and of Dunvegan.

6. Capital investment in minor airstrips

a) Do nothing scenario

Scheduled air services are currently operated from four minor airstrips in the Shetland Islands (Fair Isle, Foula, Papa Stour and Out Skerries); from six in the Orkney Islands (North Ronaldsay, Papa Westray, Westray, Eday, Stronsay and Sanday); and from two in Argyll and Bute (Coll and Colonsay).

The maximum runway length on these airstrips ranges from 381 metres on Out Skerries to 515 metres on Stronsay, with most exceeding 450 m. None of them has lighting suitable to support winter morning and evening flights.

There is currently no problem in leaving these airports as they are – the Islander aircraft which operates the scheduled services to all these islands is capable of being flown for some time, although maintenance costs will continue to rise, the availability of AvGas for the long term is not certain and the pool of available second-hand aircraft will continue to be depleted. Refurbished aircraft are more difficult to finance than new. No other aircraft ever built has been as efficient as the Islander in accessing such short runways, and none are on the drawing-board; but the facts remain that it will have a finite life and will need one day to be replaced.

Secondly, the residents of the islands have long recognised the constraints on their service caused by the exceptionally short winter hours of daylight – less than six hours in the northern Shetland Islands. The problem this causes airlines is that more

aircraft are needed to operate route networks in winter than in summer, and utilisation rates are so low that costs are inflated considerably.

However, there are opportunity costs foregone in that:

- Longer runways would permit more modern, more efficient aircraft to replace the Islander
- The provision of lighting at a number of airstrips would lead to better schedules and better aircraft utilisation in winter
- The provision of airstrips on currently un-served islands would provide economic benefits to additional communities

b) The lengthening of island airstrips to a standard length of 600 metres

Throughout much of the world, the problem of replacing the Islander has been solved by the acquisition of the nine-seat Cessna Caravan, but this faster, more comfortable, single-engined turbine aircraft does need additional runway length. The cost of this need not be excessive – studies continue to determine the precise length of graded gravel surface needed by the aircraft, and how much of the 600 metres can be provided by unsurfaced 'clearway'. It is possible that detailed study may reduce the required length to less than 600 metres, depending upon the most demanding climatic conditions and the flight length.

The most difficult group of airstrips to lengthen are probably those on the Shetland Islands, particularly Out Skerries, and it may not prove possible to achieve at any cost. However, for reasons addressed later, it would be recommended to increase the length at Fair Isle from the current 486 metres to at least 600 metres and possibly 800 – there would appear to be no obstacles to such a lengthening.

The problem with the Orkney Islands is one of timing and cost-benefit analysis - all six airstrips need to be lengthened before the Islander can be replaced with more modern aircraft and benefits obtained.

This would suggest that any scheme to lengthen runways should start with Coll and Colonsay.

In the way that the original airstrip at Broadford was constructed by the Royal Engineers as a training project, it might be possible to offer the MoD the opportunity to extend some of these island airstrips as training for the provision of airstrips in war zones, thus reducing the cost to the Scottish Government.

c) The provision of lighting at selected airstrips

Unlike runway lengthening, it is not essential to provide lighting at each airstrip to a whole group in order to obtain benefits.

For each of the island groupings, the recommendations would be:

In the Shetland Islands, to provide lighting at Fair Isle. This is the most frequent service within the Shetland Islands, and the ability to offer morning and evening services at standard times year round would enable better winter services to be offered to the remaining three islands.

In the Orkney Islands, to provide lighting at North Ronaldsay and Papa Westray. These are the two islands that are almost completely dependent upon aircraft for their connections, whereas the other four have morning and evening ferries. By maintaining a standard year-round service, this will enable the winter operations to the other four islands to be improved, and would offer better aircraft utilisation and regularity.

In Argyll and Bute, to provide lighting at Coll. This route is operated in conjunction with services to Tiree, which has full lighting. It also has a bigger problem than Colonsay in transporting scholars to Oban in mid-winter – a better service could be offered to both islands if flights to Coll could be regularly scheduled year-round.

There is already a level of lighting provided at Oban – it may be necessary to improve the available equipment to ensure operations can continue beyond the periods of dusk.

The cost of providing lighting has been assessed at £250,000 for North Ronaldsay, and it would be able to benefit Islander services as well as any Caravan services.

It is understood that there is a programme of remedial works including improvement of the lighting provision underway at Tingwall.

d) The provision of improved facilities at unused airstrips

Five other airstrips were mentioned during the consultation which might be reasonable to assess in terms of being made available for scheduled passenger services: Unst in the Shetland Islands; Hoy/Longhope and Flotta in the Orkney Islands; and Glenforsa and Jura in Argyll and Bute.

Although calls were made for the provision of airstrips to serve Fort William and the Cowal Peninsula, no specific sites appear available.

The Unst airstrip has a runway of 640 metres and full lighting, but has no services as it is not currently specified in the Shetland Islands PSO. However, there may be sufficient demand for this most distant community in the island group in the future. Fetlar and Whalsay also have airstrips with runways of 481 and 457 metres and are adequate today for scheduled services, but with insufficient demand to justify a subsidy.

Flotta has an active runway of 700 metres, while Hoy/Longhope appears to have returned to scrubland. In the medium term it is believed that there should be plans to resurrect scheduled air service from this future centre of the energy industry and of Scapa Flow to Kirkwall and/or Wick, to ensure that every advantage is given to this growth area of the Pentland Firth. Despite being on an island, Flotta would be the recommended location, with an immediate ferry service linking it with Lyness on Hoy.

A year or two ago, a good case could have been out for upgrading the 730 metre grass strip at Glenforsa in the middle of Mull, but it may now have been overtaken by the provision of a pontoon at Tobermory. The situation of Jura is equally unclear – the island has a very frequent, short ferry linking it with Islay and its airport, but it could benefit from the upgrading of the private strip at Knockrome, if only for the air ambulance service.

e) The provision of selected sheltered pontoon areas

An alternative to lengthening some of the existing runways or constructing new ones to take the (land) Caravan might be to provide pontoons nearby to take the amphibious Caravan.

Loch Lomond Seaplanes is already completing its own studies into providing pontoons at Portree and the Isle of Bute, and there may be opportunities elsewhere. Examples could include: Castlebay in Barra, mentioned above; Out Skerries, where a sheltered water aerodrome could be possible; Lyness on Hoy with its very sheltered bay; and Craighouse on Jura. Construction costs are expected to be minimal.

A special area relates to the coasts of Sutherland, where the very low density of population is unlikely to support any specific land airstrip, such as might be provided at Lochinver, Kinlochbervie, Shieldaig or Tongue. However, the cost of providing water aerodromes at these locations – all with sheltered waters – would be

considerably less expensive. They could also meet local shipping and leisure boating needs as well if carefully designed. Infrequent services could be operated from these locations to Inverness, or to a local hub at Portree, and provide an immediate benefit to the fragile local economies. It is understood that some such plans, including facilities for seaplanes, are already in the initial planning stages.

f) Recommendations

The do nothing scenario condemns many of these communities in the 'fragile' zone to a future with no improvements to their accessibility. Instead, it is recommended that the following relatively inexpensive improvements are provided.

Shetland Islands – runway extension and lighting on Fair Isle.

Orkney Islands – lighting for North Ronaldsay and Papa Westray immediately, with lengthened runways on all six islands by the end of the budget period. Depending upon the development of the Pentland Firth energy industry, it will probably also be beneficial to have lighting on either Flotta or Hoy/Longhope to help the industry round the clock.

Western Isles – no improvements needed once Barra has been settled.

Argyll and Bute – runway extensions are recommended for Coll and Colonsay, plus lighting on Coll and improved lighting for Oban; plus a study into pontoons or improved airstrip for Jura.

Highland and Moray Councils – the provision of several pontoons along the Sutherland coast.

7. Government ownership of aircraft

a) Do nothing scenario

Currently all the aircraft operating passenger and cargo air services to, from and within the Highlands and Islands region are owned by independent airlines, apart from the two Islander aircraft owned or leased by Shetland Islands Council. Ownership of these two aircraft allows the Council to put its PSO routes out to tender, with a wider variety of airlines being able to bid to operate them, rather than the handful of airlines who already possess the only suitable aircraft for these routes, the Islander.

The effect on the other PSO routes is that few airlines bid, and they tend to bid with the cheapest aircraft that can operate the route. If, instead, they bid with more expensive, but perhaps more appropriate, aircraft they are likely to lose the franchise to those with older, slower, less comfortable but (most importantly) cheaper aircraft.

The other reason for using written-down aircraft is that airlines cannot afford to purchase newer aircraft to operate a recently-won PSO if the franchise is guaranteed for no more than five years.

b) Government acquisition of a fleet of Viking Twin Otters

Nowhere is this seen more clearly than in the current situation regarding the replacement of the current Twin Otters. Currently, it is the only aircraft capable of operating the Barra PSO, and two aircraft are needed to guarantee the service. To replace these extremely old aircraft with the newer Viking Twin Otter 400 (even if allowed onto the British register) is to gamble that, over a reasonable lifetime (say 10 to 15 years), there will be guaranteed work for them, even though each franchise may be for only five years. Currently the specific requirements of just two airports – Barra and St Mary's in the Isles of Scilly – are the only reason that there are Twin Otter aircraft on the British register.

In the space of 15 years, not only is the Caravan likely to become a regular feature of aviation in the UK, and able to offer a much cheaper 9 to 13-seat competitor to the 18-seat Twin Otter, but other more efficient aircraft may also become available. An airline such as Loganair will also have to take into account the fact that, one day, the Scottish Government will decide after all to build a land strip on Barra that will take away all need for the Twin Otter.

In these circumstances, it may be worthwhile for the Government to consider acquiring the necessary Viking Twin Otter fleet, and – as with the Shetland Islands PSO – invite a range of airlines to bid to operate them. This should improve the quality of bids, as it will become far more competitive than now. Secondly, the Government, if it is called upon to finance the construction of an airstrip on Barra, will be able to take the ownership cost of the Viking Twin Otters into account.

c) Government acquisition of a fleet of Caravans

Similar considerations apply to the five Islander aircraft currently operating PSO services in the Shetland Islands (2), the Orkney Islands (2) and Argyll and Bute (1).

Because of the current abundance of Islanders worldwide, it is probable that these aircraft will be used indefinitely on these routes, unless the PSO specifies, for example, 'turbine-powered aircraft'. However, on the assumption that such a specification is made, few airlines will have the necessary particular aircraft type – in this case the 9-seat Caravan – and tenders may be expensive.

An alternative could be to follow the Shetland Islands Council route and for individual councils to acquire the preferred aircraft type, and invite a range of airlines to operate them. Because of the cost of these aircraft – some £2 m each - the cost may be prohibitive for each individual council, and a better deal might be possible if the Scottish Government were to acquire a fleet on behalf of all the PSO operations, and arrange joint finance and maintenance facilities. Because of the special considerations regarding the current ownership of the Shetland Islands aircraft and the difficulties of lengthening some of its runways, the situation may remain unchanged there for some longer period.

A side benefit of providing Caravan aircraft to be based at locations such as Kirkwall and Oban is that the aircraft are eminently suitable for air ambulance operations and could be provided with the necessary kit. These aircraft could act as back-up to the main air ambulance fleet, and provide fixed-wing service to additional islands currently not accessible by the King Air.

d) Recommendations

The Scottish Government has already paved the way for ownership of aircraft fleets by its treatment of ferries. The situation regarding the majority of ferry services is that the vessels are now owned by an arm of Government and made available to potential operators in the form of franchises. This enables the Government to obtain competitive quotes for their operation, while taking responsibility for ensuring that the vessels are appropriate for each route. This precedent could be used to similarly buy then lease out aircraft for Scottish PSO services at potentially lower cost than that available through current means of acquisition. (Indeed, it could also be applied to SAA, NLB, Scottish Fisheries and other Government aviation service requirements).

Following the analysis of the Barra route above, it is not recommended that the Government purchase a fleet of Viking Twin Otters to operate that specific route, although it might be a wise move to place options on two such aircraft as an insurance policy.

It is however recommended that the Government consider providing a kick-start to the operation of more modern turbine-powered aircraft on the smaller routes to the

smaller airstrips, once it has agreement from the CAA to permit the aircraft to fly in IMC conditions, and a programme of runway lengthening on the smaller airstrips is underway.

It would then ensure that all PSOs awarded for these local routes specified the use of the Government-owned and maintained Caravan fleet.

8. Other financial assistance to airports, airlines and users

The major problems and opportunities in this area cover:

- Financial assistance to airports
- Financial assistance to airlines
- Financial assistance to users - PSO routes
- Financial assistance to users - ADS routes

9. Financial assistance to airports

a) Do nothing scenario.

In recent years, the Scottish Government has met some 50-55% of total normal operating expenditure by Highlands and Islands Airports Limited (HIAL), or approximately £17m a year, excluding assistance for Dundee Airport. The remaining revenues are almost entirely derived from airlines, with little in the form of other commercial revenues.

At the same time, the various local councils continue to financially assist their council-owned or run airstrips so that charges to airlines may be 'reasonable'.

However, despite this very significant assistance given to HIAL, the charges currently levied on airlines are some of the highest in the United Kingdom, The current charge per departing passenger is £14.09, while the charge per aircraft tonne on arrival is £15.42, although scheduled intra-Scotland flights receive a 37% discount (£9.68 per tonne).

These charges are generally passed on by the airlines to passengers and shippers, making air travel around Scotland an expensive product. This in turn impacts on social cohesion and economic growth

b) Increase Government assistance to airports

It is recognised that the Scottish Government, either directly, or indirectly through agencies such as airports and local councils, provides a significant overall subsidy to air travel to offset the costs incurred by the poor utilisation of small aircraft through underutilised small airports.

The subsidy is split in several ways – either direct to airports, to allow them to reduce the charges; or to airlines, enabling them to operate PSO routes at less than cost; or direct to passengers through the Air Discount Scheme.

Two concerns arise. What is the total amount of subsidy that the Scottish Government should allocate in its attempt to reduce the problems of isolation and poor economic activity; and what is the most efficient way of allocating the total sum.

The Government needs to ensure that whatever money is available should be used in the most efficient way, so as not to feather-bed either airports or airlines.

The Government is also a major user of air services in the Highlands and Islands, either through its health and education arms, or by travel by national and local government officers. At some of the smaller airports, it has been calculated that, one way or the other, the Government pays for about 60% of all tickets. It is in its own interests to minimise its own travel costs, including overnight costs where schedules are inconvenient for day-return trips.

At the moment, the annual subsidy to airports (at around £25-30 m a year, including capital expenditure) dwarfs expenditure on PSOs (perhaps some £6 m a year in total) and fare reduction schemes such as ADS, estimated at a further £5 m a year: a total of some £40 million a year.

There is thus an argument that perhaps the balance should be reset, with less going to the airports.

The contrary argument is that, as they are natural monopolies, the Government cannot rely on competition to keep down airport costs, and instead has to ensure through close control that airports keep their costs as low as possible, consistent with laid-down and agreed operational standards. On the assumption that it is satisfied with the cost structures of the airports, it is reasonable for the Scottish Government to continue increasing its revenue assistance to the airports both to reduce the costs of operation, but also to improve the product available for airlines and users. Alternatively, the Government could look to have one or more airports "franchised" to a private third party operator to provide a form of benchmark.

By common consent of airlines, passengers and shippers, the most important requirement of the HIAL airports – apart from reducing charges – is to increase availability.

It would be possible for the Scottish Government to justify an increase in subsidy to HIAL if it resulted in extended opening hours at a range of airports. The most important extension will initially be at Inverness, where a partial or complete night-time operation has been sought by airlines for a long time. This would enable cargo, mail and small package airlines to offer a more complete service to companies and individuals, both in the Moray Firth area, but also to the broader Highlands and Islands region. This would also save the MOD operational cost, investment and time, and enable them to avoid having to respond to CAA pressure to ensure Kinloss conforms to CAA regulatory requirements.

The consultations showed that there were similar problems right around the network of airports: complaints that Campbeltown was closed at weekends, and Islay partially closed, when there are opportunities for inbound tourism, particularly on Friday and Sunday evenings; complaints that Sumburgh's opening hours are very constraining upon Loganair, with significant surcharges if flights are delayed; and complaints about high call-out charges for one-off flights by the air ambulance service, cargo flights and some passenger flights.

The important aspect of lengthening airport opening hours is that it not only improves the utilisation of airport facilities and staff (and leading to lower average costs), but it also enables airlines to improve their aircraft utilisation, helping them also to reduce their unit costs, possibly quite substantially.

c) Provide additional airport competition

Although each airport is a natural monopoly for its local area, particularly on islands, there are still ways to increase competitiveness among airports. The Competition Commission has recognised this in asking the BAA to sell either Glasgow or Edinburgh Airports.

There are three main areas of concern. Firstly, an unproven assumption that, as a Government controlled body, HIAL is less assiduous than a private airport company in reducing its operating, and particularly, overhead costs, possibly leading to a 'gold-plating' mentality seen in the monopolistic approach to airports in South East England.

Secondly, an assumption that procedures and approaches appropriate to Inverness Airport (with a throughput fast approaching 800,000 passengers a year) are being applied unthinkingly to Tiree, with just one per cent of this throughput, at some 8,000 passengers a year. Inverness is four times larger than the second-largest HIAL airport, Sumburgh.

Thirdly, it is recognised that four of the local authorities in the region (Shetland Islands, Orkney Islands, Argyll and Bute, and Highland Council) are each responsible for the operation of several small airstrips. There appears to be an increasing recognition that these Councils do not each have sufficient skilled staff to oversee and control these facilities. The expectation is growing that these smaller airstrips could be run more efficiently with a team of managers looking after all of them.

The possibility exists that a re-organisation of all the publicly-owned or operated airports and airstrips throughout the Highlands and Islands might both reduce overall costs, and improve efficiency.

Several possible ways of re-organising these airports could be considered, but one which appeared to receive a degree of interest was as follows:

Inverness to be floated off as a single entity, either continuing to be funded directly by the Scottish Government, or made available for sale to private companies, albeit with continuing Government subsidies. Its success would be measured by comparing its cost levels with other major Scottish airports – Aberdeen, Edinburgh, Glasgow and Prestwick. Currently, the mix of costs over eleven widely-differing airports makes strict comparisons impossible.

All other airports and airstrips to be divided into two units – an east coast unit including all public airports in the Shetland Islands (9) and the Orkney Islands (8) plus Wick and Dornoch; and a west coast unit including all publicly-owned airports and airstrips in the Western Isles (3) and Argyll and Bute (7), plus Broadford. Privately owned airports and airstrips such as Scatsta and Plockton, and all privately-operated water aerodromes, would probably stay outside this scheme, although trust-owned airstrips in the Shetland Islands would be expected to join in, at least for operational purposes.

(The situation of Dundee Airport would remain anomalous – it could either be floated jointly with Inverness Airport, or it could be offered for sale separately).

One concept would be to franchise out the operation of these Government-owned regional groupings, and attract competent airport operating companies to operate them for periods of, say, 10 to 15 years. The concept of having two similar companies is that they could provide competition for each other, with best practice in one being transferred later to the other. An alternative concept would be to set them up as two mini-HIALs, reporting directly to the Scottish Government, but still providing two competing managements.

d) Seek cost-cutting derogations for airports

A significant proportion of costs incurred both by the ten HIAL airports and the many smaller airstrips are in meeting operational criteria laid down by the CAA / EASA / HSE as regards aviation safety, work place safety standards and by the National Aviation Security Programme (NASP) as regards security.

There is increasing concern among airlines, users and airport owners that many of these expensive practices are based on outmoded thinking, and that best practice, as observed overseas, could cut costs noticeably, without affecting either safety or security. The problem of over-regulation needs to be addressed. The need for large staffing levels exacerbates the problem of opening for longer hours, and even for covering lunchbreaks.

It was suggested that the Scottish Government should initiate serious discussions with the current regulatory bodies on seeking suitable standards for small airstrips and for airports that do not handle aircraft with in excess of, say, 50 seats. It could significantly reduce operating costs at the region's smaller airports and airstrips, although there may be fewer savings at Inverness, with no proven detrimental impact on operating standards.

What seems to be needed is a top down technology and business driven reapplication of the regulations underpinned by sound and fully-tested mitigations, not a short-term political solution.

Scotland needs to align its regulation with ICAO countries such as Australia (350,000 passengers and no RFF or ATC required) and Canada, and introduce a new "Remote Regions Aviation Policy" – it need not be a reinvention of the wheel.

Discussions with the CAA on safety would be expected to cover the following areas:

i) Rescue and Fire Fighting Service (RFFS) standards.

It has been argued that the present RFFS rules are still heavily based on the post-war period, when most aircraft operated with reciprocating engines that used more volatile petrol (AvGas), were built with many inflammable construction materials, and used relatively inaccurate navigation and landing aids. Airport incidents were far more common fifty years ago than now.

All aircraft are now required to be evacuated without assistance in 90 seconds, while fire appliances are required to be on the scene of an accident / incident only within the airport boundary within three minutes. The required response time for more remote parts off airports is longer, while there is no more duty on the local fire brigades to attend an aircraft incident just outside the airport boundary than for any other incident.

With modern technology both on the ground and in the aircraft a new policy commensurate with a modern day risk assessment – a new look at RFF - should be undertaken. It should be appropriate to the risks and numbers involved, and be of a similar nature to risk assessments for all other forms of transport. Such an assessment could significantly reduce the cost of manning the smaller airstrips in the region, without increasing the number of serious injuries.

ii) Landing and navigation aids

Scotland should also seek to be at the forefront of actions to replace expensive and increasingly outmoded Instrument Landing Systems by the adoption of modern global positioning technology, as used elsewhere in the developed world, including remote regions with basic airstrips.

Discussions could include using GPS instrument approaches at airstrips without any ground equipment such as ADF and VOR which, along with non-directional beacons (NDBs) are slowly being phased out.

The global tendency is increasingly to look to replace expensive ground equipment at airports by relatively inexpensive airborne technology enabling aircraft to fly precision approaches to even remote airfields in periods of reduced visibility and cloud base.

It is believed that there is a strong groundswell worldwide to adopt these more modern methods, and the time may now be right to ensure that, at the very least, smaller airstrips in Scotland should be spared the weight of so much CAA regulation.

A separate aspect of this would be for the Scottish Government to work alongside Loch Lomond Seaplanes to ensure that forthcoming CAA regulations concerning the safety infrastructure required for water aerodromes are not too onerous. Examples from overseas should be sought to bolster such arguments. It is also argued that the Scottish Government could fund most of any necessary safety aspects agreed, while accepting that all other aspects of airline service to these remoter communities is likely to be provided by private finance.

Discussions with NASP would concentrate on two aspects – need and funding.

i) The need for some of the more recent aspects of aviation security need to be strongly challenged with the appropriate authorities. As a starting point, it is suggested that the Scottish Government should only accept NASP recommendations at airports that have aircraft operating with more than, say, 50 seats. Although smaller aircraft are capable of flying into tall structures, they are very unlikely to kill many not already in the aircraft – there seems no benefit to terrorists to target such a vehicle. Far more damage can be done with a 70-seat bus in a crowded thoroughfare, an underground train or a 1,000-seat train, as seen in Madrid.

Passengers who are transferring at an airport such as Inverness on to a larger aircraft would need to clear security at that point and not before, in the same way that anyone arriving at the airport by bus would also have to, with their baggage being screened at the same time.

As a result, security fences around small airports would not be required, and cargo screening equipment only required at major airports when cargo arriving on smaller aircraft would need to be screened before transfer.

The principle has already been accepted by NASP – airstrips used only by aircraft of up to 20 seats need not adhere to these regulations. Ideally, the limit now needs to be lifted to 50 seats. Such principles are accepted for UK general aviation airports.

ii) Funding of the staff and infrastructure also needs to be considered. If the need is for national security, then the payment for protection must come from the national body, Westminster. At the moment each departing passenger from a HIAL airport pays £6.05 to ensure (hopefully) that none of their fellow-passengers is considering hijacking or exploding the aircraft. It is right that the Scottish Government assess the risk to passengers on aircraft within Scotland, and to ask Westminster for financial assistance if the risk is assessed as being negligible.

e) <u>Recommendations</u>

The above analysis suggests that the Scottish Government should continue to strongly subsidise HIAL, and that additional subsidies should also be provided to assist other of the larger airports, such as Oban. The most significant increase in subsidies should be made to increase the opening hours of the major airports, to provide a stimulus to airlines to improve their range of services to these economically-depressed locations. The Scottish Government should also contribute to any necessary safety features at water aerodromes as may be required by the CAA.

In return, it is suggested that the Scottish Government studies a possible redistribution of the HIAL airports, hiving off Inverness separately, and setting up two other companies to manage all the HIAL airports and council-run airstrips in the region, to stimulate innovation and encourage competition.

At the same time, it is recommended that the Scottish Government commence a long-term engagement with both the CAA and NASP to achieve fit-for-purpose regulations, appropriate to the smaller airports and airstrips throughout the region – it is recommended that the current lower limit for such regulations be raised from 20 seats to 50 seats.

10. Financial assistance to airlines

a) Do nothing scenario

Currently there is little if any direct funding of airlines. Those tendering for PSOs ensure that all their costs are covered, albeit that the awarding authority may waive certain costs such as landing charges. Those operating ADS routes are entitled to revenue compensation where the Scottish Government has permitted scheme members to purchase fares at a 40% discount. There may also be some other hidden subsidies.

b) Possible assistance to airlines

One possible area is in providing grants to airlines to create jobs in the Highlands and Islands region. One such grant was believed to have been given to Loganair to construct an Islander maintenance base at Kirkwall, but there may have been other such awards. Scope for further such assistance may be limited.

A specific area of assistance that could be given currently is to work closely with Loch Lomond Seaplanes and the CAA to ensure that the most appropriate rules are drawn up for the use in a scheduled services environment for single-engined turbine aircraft such as the Cessna Caravan. If, as suspected, this aircraft replaces the Islander as the standard work-horse at smaller airstrips within the next ten years, and with the possibility of several airlines competing with such equipment, it will be of value to both the airlines and the region to achieve the most favourable operating environment for them.

c) Achieving airline competition in the region

Three significant facts stand out. Firstly (apart from one positioning flight a day between Inverness and Stornoway by Highland Airways) there is no competition on any scheduled passenger route within the region. On flights from Inverness to London there is a degree of competition offered to Flybe by easyJet.

Secondly, almost all non-PSO flights in and to the region are operated by Loganair, while many other flights from Inverness are operated by its franchise partner Flybe. The only other non-PSO airline operating in the region is Eastern, which provides (monopoly) service from Aberdeen to Stornoway and Wick.

Thirdly, there is no restriction on any EU airline from operating alongside Loganair and Eastern on any route within the Highlands and Islands (apart from on PSO routes). They have all chosen not to do so, although it is possible that this could change. For example, although Loch Lomond Seaplanes have opted to commence operations with the amphibious Caravan, there is nothing that could stop them if they decided to operate with the land Caravan from Glasgow to Islay.

There is little that the Scottish Government could do to encourage further competition should it feel that the existing airlines are not being sufficiently cost-effective, or are not responding to customer concerns.

d) Recommendations

Apart from working closely to achieve suitable operating environment for single-engined turbine aircraft, there is little scope for the Scottish Government to achieve

its objectives for the Highlands and Islands by providing revenue assistance direct to airlines, and little likelihood of being able to stimulate airline competition.

11. Financial assistance to users - PSO routes

a) Do Nothing Scenario

Currently, there are two different models in use for intra-Scotland PSOs – one (from Glasgow) is funded by the Scottish Government, while four (from Lerwick, Kirkwall, Stornoway and Benbecula, and Oban) are funded by the local councils. The Scottish Government also put forward proposals for a cross-border PSO from Inverness to Gatwick.

The purpose of the PSOs is to guarantee a minimum level of service and a maximum fare on routes which might not otherwise support a regular scheduled service, or at the frequencies and fares necessary to provide economic support to 'fragile communities'.

On routes without PSO, the Scottish Government is relying on market-led solutions.

b) Standardisation option

One possibility for the future is that the Scottish Government could take responsibility for all PSOs involving the Highlands and Islands. Local councils would still have the primary responsibility for determining the level and standards of service required and, together perhaps with the Scottish Government, setting an appropriate tariff. However, the Scottish Government would take responsibility for ensuring that the PSO applications are standardised wherever possible, and processed accordingly through Westminster and Brussels.

The main benefit of such an approach is that PSOs could more easily be constructed where routes connect airports and airstrips in more than one council area. The reason for the Scottish Government taking responsibility for the PSOs between Glasgow, Campbeltown, Tiree and Barra is that three local councils are involved – Renfrewshire, Argyll and Bute and the Western Isles – whereas all others are confined to a single council area.

Under a single Scottish Government system, it will be much easier to consider putting forward multi-council PSOs, with input from all affected councils.

Several new routes potentially suitable for PSOs were suggested during the consultations, and some of those would involve more than one council.

Operations suggested included:

- A twice-daily service from Wick to Kirkwall, Fair Isle, Tingwall, and perhaps Unst offering a wide range of local benefits: knitting together both sides of the Pentland Firth; providing a tourist access route to Fair Isle; providing a standard daily service from Fair Isle to Tingwall, including winter mornings and evenings; and a possible revived link between Tingwall and Unst. It would reduce the level of operations for the existing Shetland Islands PSO, but might offer improved regularity for the three remaining islands, and perhaps allow extension of the service to Fetlar and/or Whalsay. Three councils would need to be involved. There would also be scope at a future date for Wick to be linked with either Flotta or Hoy/Longhope to meet growing demand in the Pentland Firth energy zone.
- Splitting the existing PSO to Campbeltown, Tiree and Barra into two, and linking together Glasgow-Barra with Glasgow-Broadford (Skye), each of which airports currently needs the use of the Twin Otter or its Viking

replacement, or the Grand Caravan; and offering Glasgow-Campbeltown and Tiree together, where a Saab 340 aircraft could offer an operation as cheaply as the current Twin Otter service. Three councils would need to be involved for the Barra and Broadford routes, and two for the Tiree and Campbeltown routes.

- Other options put forward include linking Oban with a range of destinations in the Western Isles and Highland Council, specifically Benbecula, Skye and Inverness. Up to three councils could be involved.

A variety of options was also put forward for Argyll and Bute to consider, particularly linking Oban with Islay, but a PSO for this type of operation can be easily constructed under either method as only one council would be involved.

c) PSOs to apply to existing non-PSO routes

The original Aviation & Travel Consultancy report of 2004 put forward a proposal for all non-PSO routes within the Highlands and Islands at that time, plus some specified additional routes, to be the subject of PSOs, so that specified frequencies, schedules and fares could be applied. Following the logic that as, one way or other, the Scottish Government was probably responsible for some 50-60% of airline revenues, and gave significant sums to airports to reduce the costs of airlines, there was some element of encouraging he who paid the piper to call the tune.

This scheme was turned down by the Scottish Government in favour of the ADS scheme, and the original idea is not being re-proposed.

However, it is important to note that there are still some calls for a proportion of those routes still to be protected by PSO, particularly from the Shetland Islands and the Western Isles. The Shetland Islands' main interest is in reducing the cost of flying to their remote archipelago – PSOs would allow lower fares to be available for all travellers, with the cost being met by the Scottish Government.

The interest of the Western Isles is more in protecting existing routes and in supporting new ones which are not being provided by the market-force airlines. The main concern lies with Benbecula's services for the Uist group of islands. There had been some real concern that a planned major reduction of employment by Qinetiq could lead to Loganair reducing their current twice-daily service to Glasgow back to a once daily service; however, the announcement in September of a reversal of that decision has taken the pressure off that route. However, there are still frequent calls for the airport to be linked direct to Inverness, which is slowly replacing Glasgow as the commercial focus of life in the Western Isles. Ideally, Benbecula needs a twice daily service to both Glasgow and Inverness, but a Saab 340 on the Inverness route would probably offer far more seats than are required. Instituting a PSO to Inverness is possibly the only way to provide the required service with an aircraft of an appropriate size.

Finally, it may be a way of improving access to the growth node of Wick over the coming decade. Currently, the airport is linked by a three daily service to Aberdeen (by Eastern Airways) and a daily flight to Edinburgh (by Loganair). The region is continually calling for improved frequencies, particularly to the central belt, with onward connections to major English industrial centres such as Manchester, and a PSO calling for a higher frequency service might be capable of being justified.

d) PSOs to be used for evening and weekend frequencies

A regular feature of bus services in the United Kingdom is that a bus company will willingly operate services all day Mondays to Saturdays between say 07:00 and 19:00 but will not willingly seek to operate some routes in the evenings or on Sundays. In many such cases, local councils will offer to subsidise these extra

services in order to provide necessary services for its community, albeit that the extra journeys may be poorly used.

There may be an argument for the five regional councils to consider the possibility of subsidising additional evening flights on certain routes to provide the business and leisure communities with additional travel options, possibly at a lower fare, thus improving the utilisation of both aircraft and airport, and increasing the itinerary options for all travellers. For example, it may enable some passengers to avoid an extra night's accommodation costs. The simplest method may be to institute a PSO for such additional services, enabling lower fares to be offered than would otherwise be acceptable to the airlines, either the incumbent already on the route, or a second carrier.

d) PSOs to protect the route from Inverness to London

Providing a guaranteed service to a London hub airport is the main aviation concern of the business community around the Moray Firth. For several years, the Scottish Government has awaited the deliberations of the UK Department for Transport on its request for PSO protection of slots at Gatwick for an Inverness service, but it is unlikely ever to be provided because of the technical difficulties of acquiring slots at the preferred times without the need to purchase them from incumbent airlines.

There is a growing possibility that the Department for Transport will be persuaded to put aside certain slots made freshly available by a possible construction of a third runway at Heathrow in around 2020, for a variety of regional centres including Inverness and possibly Aberdeen. However, even if this possible development were to happen, it would be beyond the timescale of this study, and would still leave Inverness without a guaranteed service to either Heathrow or Gatwick in the interim.

With intercontinental services from Gatwick reducing sharply in recent years, and legacy service to Gatwick also reducing markedly, the value of the route to Gatwick continues to decline. Meanwhile, the value of a route to Heathrow continues to rise.

Although the PSO route is not available, one possible opportunity should be followed up. Northolt Airport lies some six miles north of Heathrow, which could be reached in about 15 minutes by taxi, compared to the two hours which need to be left clear for journeys along the M25 from Gatwick. Northolt is not allowed to accept scheduled services, but can take general aviation and business aircraft with up to 30 seats, to a permitted limit of 7,000 movements a year (with no flights at the weekends).

Studies have been put in hand of a regular morning and evening charter service from Inverness to Northolt (or 1,040 movements a year) on a 30-seat jet, charging the full London-Inverness fare, and available at short notice to any traveller who signs up to join a charter club when checking in. At weekends, the service would operate direct to Heathrow, when there are some suitable slots still available.

If initial studies proved satisfactory, the Scottish Government would be asked to assist the charter organisation to acquire the necessary slots from the Northolt handling company, and possibly put pressure on the MoD and the CAA to allow an increase in the available movements from 7,000 to 8,000 a year, and an increase in the number of seats permitted on each flight.

The service would benefit from any reduced handling charges that might be made available by Inverness Airport.

e) PSOs to support a route to Amsterdam

For many years, the business and aviation community in the Inverness area have sought to re-introduce a regular scheduled service between Inverness and Amsterdam, a major European hub which would provide excellent connections to

most European and intercontinental destinations. The service was last operated by Air UK in 1998.

Various inducements have been offered, including airport charge discounts for the initial three years, and the Route Development Fund which – although technically still available – has been sufficiently trimmed by European regulations to render it ineffective.

However, the PSO route is still available. Although not often used for routes between Member Countries, PSOs may be used for such routes, providing that both Member States are in agreement. The only restriction upon which routes may be available for PSO protection is that one of the two airports must be *'serving a peripheral or development region in its territory . . . any such route being considered vital for the economic and social development of the region which the airport serves. That obligation shall be imposed only to the extent necessary to ensure on that route the minimum provision of scheduled air services satisfying fixed standards of continuity, regularity, pricing or minimum capacity, which air carriers would not assume if they were solely considering their commercial interest'* (EU Regulation 1008/2008, Article 16(1)).

A PSO may be made available for a maximum period of four years, and there is no restriction on the level of subsidy paid to an airline to operate the route. The restriction will arise from the ability of the local, regional or national body to fund the airline to operate what is expected – initially – to be a loss-making service. It might also be possible to obtain financial assistance from the Netherlands Government if it is believed that the route was also in its own national interest.

f) Recommendations

It is believed that a centralised administration for all Scottish PSO routes would improve the decision making process, and also encourage the development of routes across arbitrary council boundaries.

Such a move might encourage further cross-boundary routes to be proposed to meet local requirements.

Specifically, it is recommended that HITRANS approach the Scottish Government to see if any national investment might be available to support a service between Inverness and Amsterdam.

The Scottish Government could also be asked to pursue discussions with the DfT concerning the reservation of slots on any future third runway at Heathrow for a route to Inverness; and to seek some relaxation of operating rules at Northolt from the Ministry of Defence in advance of the possible development of a third runway at Heathrow and to secure this vital link.

12. Financial assistance to users - ADS routes

a) Do nothing scenario

The Air Discount Scheme was introduced on a trial basis in May 2007, and has been extended following a detailed analysis of the impact on air traffic and on competing ferry routes. The scheme has abstracted some traffic from ferry routes, as well as generating much additional traffic by residents, predominantly for leisure purposes.

The Halcrow study recommended no change in the nature of the scheme – no increase in the discount rate, and no extension to residents of areas beyond the scheme boundaries, or of the scheme boundaries. It does not permit discounted travel on routes already covered by PSO conditions.

Since the scheme was commenced, the Scottish Government has introduced a trial of an alternative reduced fare being available on ferries between mainland Scotland, the Western Isles and Coll and Tiree. Discounts are such that fares are set at the Road Equivalent Tariff or RET, being a very significant discount on the previous fare levels.

Prior to any detailed analysis being presented, it would appear that this has led to a substantial increase in ferry traffic, such that late-booking tourist traffic has not always been able to get to the islands. Early indications are that this pilot scheme may also have impacted on air travel flows between the same locations.

The main difference between RET and ADS is that RET (like the PSO routes) is available to all passengers, including potential tourists, whereas ADS is only available to members resident in the fragile areas. RET also covers port charges, whereas the ADS scheme only offers a discount on the airline charge, leaving the high airport charges of some £28.18 per round trip un-discounted.

b) Extend ADS to all passengers

Although this would be a very popular move, and make the routes similar to the PSO (and RET) routes in that all passengers would benefit, it would more than double the cost to the Scottish Government in the form of extra payments to the operating airlines. This could still be seen as a wise decision as it would improve social cohesion and improve the ability of inbound business travellers to access these remoter communities.

It would significantly increase demand for air services and could lead either to additional frequencies or the use of larger aircraft. It might also encourage airlines to open new routes.

On the other hand, it will affect the economics of the competing ferry services, in the same way as RET is seen to be affecting air services. It will be a difficult decision for the Scottish Government to weigh up the costs for these two competing modes and determine what should be the 'social' fares available on each of the two modes, and whether one mode should be favoured over the other.

Perhaps the fairest method of allocating subsidies across the different modes would be to offer the same percentage discount to operators on the basic single fare. This would then be a relatively accurate reflection of the costs of the two modes.

This would then automatically entitle all passengers to access the ADS discount, and for the basic fare on both modes to include all taxes and charges such as port and airport charges, and APD charges.

This could result in the current level of ADS offered to scheme members being lowered, and resulting in higher fares, but would enable friends and relatives to visit the remote regions at the same discounted price – a request raised at all consultations.

The problem then arises as how to address the different levels of discount provided on PSO routes, bearing in mind that these are already offered to all passengers. The simplest answer would be to ensure that the basic fare structures on the PSO routes are the same as on other routes which are not in need of state-support and are then made available for ADS. The difference between the two separate route-groups is that demand levels and/or cost levels are still insufficient to tempt airlines to offer a service on PSO routes without an additional subsidy.

c) Terminate the ADS and RET trials

This would almost certainly prove to be extremely unpopular, and would not meet the needs either to improve social cohesion or to aid economic development throughout

the region. The argument put forward by many in the consultations is that residents in the rest of Scotland benefit strongly from the major subsidies given to rail services and bus companies, as well as significant expenditure on the road network; but these services are rarely used by island residents. To them, aircraft and ferries are their buses and trains, and it is only fair for the remote areas to receive a transport subsidy similar in financial size per resident to those on the mainland.

During the consultation period, it was announced that the UK Government is contemplating the expenditure of some £35,000 m on constructing a rapid rail link from Edinburgh and Glasgow to Manchester and London. It is assumed that some portion of that cost will fall on the Scottish Government, and will dwarf all subsidies provided pro rata to residents of the remote areas.

It would be valuable if the Scottish Government could provide a table of all its transport expenditure and subsidies to show what the average subsidy is per mainland resident, and provide similar figures for the islands. Such a table would assist HITRANS and ZetTrans to construct their requests for transport subsidies for each mode in their respective regions, recognising that residents of Highland and Moray Councils will benefit from rail, bus and road expenditure on the mainland.

d) Recommendations

Following the decision not to support plans for widespread PSOs throughout the Highlands and Islands, and instead to follow the line of ADS and now RET, it would seem sensible for this route to be continued.

The logic is that – subject to EU approval, which has been given for the RET pilot scheme – ADS should be converted into a discount scheme for all travellers, perhaps at a lower rate than the current 40% discount, and that the RET scheme should be extended to all similar ferry services.

The main recommendation is that the discounted fare levels selected for each mode should aim to provide the same level of discount off the basic single fare, which in turn should be shown to be related to the total operating cost of the vehicle.

The intention is that the overall transport subsidy per resident should at least equal the average subsidy for mainland Scotland, and perhaps be as much as 20% higher, in order to achieve the goals of reducing social isolation and encouraging strong economic growth in these fragile regions.

13. Other non-financial assistance

Various other actions could be undertaken by the Scottish Government to achieve better economic performance of the aviation industry and/or improved economic performance in the Highlands and Islands region, as discussed below.

a) Obtain exemption from APD for all internal Scottish air services

When Air Passenger Duty was first introduced by the British Government in 1994, various exemptions were made, in particular that passengers on board aircraft with less than 20 seats were excluded. HITRANS succeeded in obtaining an exemption for all flights departing from airports in the Highlands and Islands, but passengers flying to the region from outside are still required to pay.

Initially set at £5 per flight, and at £10 since 1997, the standard rate for domestic and European flights rises to £11 from November 2009, and £12 from November 2010. Thus a passenger on a round trip between Kirkwall and Inverness will not have to pay any APD, but a round trip between Kirkwall and Aberdeen will incur APD charges of £11 from November 2009.

As all internal Scottish flights from Aberdeen, Dundee, Edinburgh, Glasgow and Prestwick operate only to airports in the Highlands and Islands, it is recommended that the Scottish Government seeks exemption from APD for all Scottish internal air services.

b) Protection of slots at Edinburgh for Highlands and Islands services

There is concern that Edinburgh Airport has no firm plans to construct a second runway. If growth continues at the current rate, there is expected to be a shortage of slots in the peak morning and evening hours at the airport which will probably have a detrimental impact on routes to the region.

In a free market, valuable slots will be sold by airlines operating with small aircraft to airlines wishing to use larger aircraft on longer-haul routes – a situation which has been increasingly observed at Heathrow and Gatwick. There is no guarantee that the airport will be able to protect slots for the Highlands and Islands routes, and Government action may be necessary to protect these lifeline services.

At the moment, there is a solution available – Edinburgh Airport has a short cross runway which is usable by all turboprop aircraft. It is suggested that the Scottish Government holds talks with the BAA to ensure that this runway is kept available for turboprop aircraft, and is not compromised by any future developments at or close to the Airport. Alternatively, the Scottish Government might wish to work with BAA SAL to see if other land adjacent to Edinburgh Airport could be released for airport development purposes, in order to secure the cross wind runway and save it from being used for development of aircraft stands, taxiways etc.

If such a guarantee is not forthcoming, the Scottish Government should consider the imposition of PSOs on all domestic routes into Edinburgh Airport, not to provide subsidies, but in order to retain the slots for these routes – the method long followed by the French DGCA to protect routes from the smaller regions into Paris.

c) Investigate ways of introducing competition in the aviation fuel market

One of the main complaints from airlines regarding the operating environment in the Scottish Highlands and Islands is the cost of aviation fuel. It is recognised that prices will be higher than in southern Britain, but the view is held that abnormal profits are being made by the monopoly fuel suppliers throughout the region.

One of the actions taken by airlines to mitigate this section has been to carry as much round-trip fuel as possible on a flight from, say, Edinburgh to Sumburgh, so as to minimise the amount of fuel on-loaded at the remote point. This has three detrimental side-effects – firstly an unnecessary amount of fuel is burnt in carrying around this extra bunker fuel; secondly, the extra weight does on occasion restrict the number of seats available for paying passengers; thirdly the extra cost will eventually be translated into higher fares.

It is recommended that the Scottish Government carries out a study into the cost of aviation fuel at airports in the Highlands and Islands with a view to introducing competition wherever possible.

Alternatively, it could analyse the possibility of working towards harmonising the price of aviation fuel across all Scottish airports; perhaps by subsidising its provision at these more remote airports.

d) Investigate the possibility of manufacturing small aircraft in Scotland

The study reports on the lack of aircraft being constructed around the world to replace the three workhorses of the aviation industry in the Highlands and Islands – the Islander, the Twin Otter and the Saab 340. This can also be viewed as an opportunity for Scotland.

Only two aircraft are now being built anywhere in the world to fill the gap of passenger aircraft with less than 50 seats – Viking in British Columbia will shortly re-commence deliveries of an improved 18-seat Twin Otter; while Cessna in Wichita is producing the 9-seat Caravan and the 13-seat Grand Caravan. No-one has any plans for a 30-40 seat aircraft for the future replacement of the Saab and a range of similar aircraft such as the Jetstream and the Dornier 328.

If Scotland is suffering from a lack of suitable replacement aircraft, then it can be assumed that there is a similar lack in the rest of the world, particularly in remote areas.

With funds available from Brussels to help set up new industrial production sites in Scotland, it is recommended that the Scottish Government holds discussions with two existing aircraft manufacturers regarding the possible setting-up of a production line in Scotland for proven small aircraft, possibly within the Highlands and Islands region at a location such as Campbeltown, but more probably in lowland Scotland.

The first target for discussion would be Bombardier, who are still producing the successful 78-seat Dash 8-400 in large numbers. This aircraft is a development of the earlier (and smaller) 100, 200 and 300 series versions of the Dash 8, which are now out of production. However, these smaller aircraft were relatively successful, and are still in limited use in England. Just as Viking have rediscovered a market for the (Bombardier) Twin Otter, so it is believed that the Series 200 aircraft with some 38 seats will be able to replace the Saab and other aircraft when they begin to become obsolete. Together with Loganair, it might be possible to order a sufficient number of aircraft for say 2020-2025 to provide the necessary kick-start to such a programme.

The second target would be to work with TEXTRON and its subsidiary Cessna, with discussions centring on Scotland becoming a European base for the production of the Caravan family of aircraft. The future for this aircraft is seen to be bright, as it would enable long thin routes to be pioneered throughout Europe once single-engine turbine aircraft become an accepted part of the aviation scene. A production facility, based on initially assembling Caravan kits shipped from Wichita, might be feasible at the new Dalcross Business Park.

G. Summary of recommendations

HITRANS and ZetTrans have commissioned this report to help them prioritise requests for financial support from the Scottish Government for aviation projects in the Highlands and Islands.

The following section is based on the problems as discussed in Section E, and an assessment of various options in Section F.

The recommendations have been grouped into

a) Capital intensive projects

b) Revenue support projects

c) Other (non-financial) support projects

Each recommendation has been given scores for the importance of the project to the region, for the amount of funding that could be required over the period from 2013 to 2019, and for the urgency of the requirement.

Projects rated ***** have been considered 'vital' for the region, while * refers to projects which would be 'nice to have' = 'importance'

Projects rated 5 would involve the greatest amount of financial support, while those rated 1 would require little if any financial support = 'cost'

Projects rated A need to be completed as early as possible, while projects rated E may easily be deferred to the end of the period = 'timescale'

a) Capital intensive projects

i) Major repairs and minor upgrades to HIAL capital infrastructure (see Section F, 3, d).

Importance	****	Cost	5	Timescale	C

ii) Provision of cargo screening equipment at major HIAL airports (F, 3, d)

Importance	****	Cost	2	Timescale	A

iii) Provide Inverness with full-length taxiway (F, 3, d)

Importance	**	Cost	3	Timescale	D

iv) Construct 800 metre runway on Barra (F, 4, h)

Importance	****	Cost	4	Timescale	B

v) Provide pontoons for water aerodrome at Portree (F, 5, f)

Importance	****	Cost	1	Timescale	A

vi) Extend Skye Airport to 1300 metres (F, 5, f)

Importance	***	Cost	4	Timescale	D

vii) Provide lighting on up to six airstrips, plus Oban (F, 6, f)

Importance	****	Cost	2	Timescale	A

viii) Extend up to 10 island airstrips to 600 metres (F, 6, f)

Importance	***	Cost	3	Timescale	C

ix) Examine need for and re-instate airstrips at Unst and Hoy (F, 6, f)

Importance	**	Cost	2	Timescale	C

x) Provide pontoons for water aerodromes on Sutherland coast (F, 6, f)

Importance	**	Cost	1	Timescale	D

xi) Acquire a fleet of 9-seat Caravan aircraft for tendering on PSO routes (F, 7 d)

Importance	***	Cost	3	Timescale	B

xii) Provide necessary safety and security infrastructure for water aerodromes (F, 9, e)

Importance	**	Cost	2	Timescale	B

b) Revenue support projects

i) Pay for increased opening hours at HIAL and other airports (F, 9, e)

Importance	*****	Cost	4	Timescale	A

ii) Provide support for Inverness – Amsterdam PSO (F, 11, f)

Importance	****	Cost	2	Timescale	A

iii) Extend ADS scheme to be available to all passengers (F, 12, d)

Importance	***	Cost	5	Timescale	A

c) Other (non-financial) support projects

i) Investigate restructuring of organisation of all public airports and airstrips in the region (F, 9, e)

Importance	***	Cost	1	Timescale	D

ii) Long-term engagement with CAA and NASP re fit-for-purpose standards for remote region airstrips and airports (F, 9, e)

Importance	*****	Cost	1	Timescale	A

iii) Engagement with the CAA to permit single-engined aircraft operate scheduled air services (F, 10, d)

Importance	*****	Cost	1	Timescale	A

iv) Take over responsibility for all PSO administration from Councils to permit multi-council applications (F, 11, f)

Importance	**	Cost	1	Timescale	C

v) Pursue discussions with DfT re slots on Heathrow Third Runway for Inverness and Aberdeen (F, 11 f)

Importance	****	Cost	1	Timescale	B

vi) Hold discussions with MoD re relaxing regulations at Northolt (F, 11, f)

Importance	***	Cost	1	Timescale	A

vii) Seek exemption from APD for all Scottish internal flights (F, 13, a)

Importance	*	Cost	1	Timescale	A

viii) Seek protection of slots at Edinburgh Airport for all Highlands and Islands turbo-prop operations (F, 13, b)

Importance	***	Cost	1	Timescale	D

ix) Seek ways of introducing competition into the aviation fuel market (F, 13, c)

Importance	***	Cost	1	Timescale	B

x) Hold conversations with aircraft manufacturers regarding possible aircraft assembly in Scotland (F, 13, d)

Importance	***	Cost	1	Timescale	B

Appendix 1: Terminal Passengers at all Airports in the Highlands and Islands 2000-2008

	2000	2001	2002	2003	2004	2005	2006	2007	2008	AAGR (00-08)
Barra	7,591	8,509	8,285	8,318	8,781	9,454	9,808	10,415	10,705	4.4%
Benbecula	33,556	34,152	31,534	31,914	29,711	31,247	33,433	34,992	33,595	0.0%
Campbeltown	7,556	8,037	8,193	8,268	8,398	8,781	8,928	8,901	9,090	2.3%
Inverness	336,701	342,790	363,415	434,644	520,319	588,773	670,894	697,480	670,752	9.0%
Islay	19,731	19,545	20,669	21,422	21,303	21,652	26,218	28,406	29,136	5.0%
Kirkwall	85,216	86,795	98,314	102,716	102,023	103,740	116,837	131,903	137,616	6.2%
Scatsta	240,361	246,636	246,713	229,558	228,943	239,249	255,147	252,894	243,041	0.1%
Stornoway	87,589	87,643	93,492	106,233	110,831	115,387	120,288	126,203	130,888	5.1%
Sumburgh	119,066	132,782	127,405	110,482	107,848	120,937	128,233	146,960	154,011	3.3%
Tingwall / Lerwick	2,480	1,971	2,068	2,065	2,342	4,039	4,438	5,059	4,854	8.8%
Tiree	4,829	5,289	5,295	5,293	5,610	6,749	7,016	7,807	8,419	7.2%
Wick	19,191	18,114	17,840	16,812	15,552	16,256	19,538	20,784	23,430	2.5%
All H & I airports	963,867	992,263	1,023,223	1,077,725	1,161,661	1,266,264	1,400,778	1,471,804	1,455,537	5.3%
% chg		2.9%	3.1%	5.3%	7.8%	9.0%	10.6%	5.1%	-1.1%	
Aberdeen	2,454,117	2,525,029	2,549,333	2,507,878	2,633,808	2,851,784	3,162,624	3,411,140	3,290,236	3.7%
Dundee	49,192	49,165	45,323	51,734	50,845	48,624	51,496	65,419	60,929	2.7%
Edinburgh	5,493,509	6,038,341	6,911,152	7,476,357	7,992,453	8,448,604	8,606,651	9,037,200	8,992,178	6.4%
Glasgow	6,919,989	7,242,696	7,768,573	8,115,322	8,557,047	8,775,355	8,820,462	8,726,013	8,135,260	2.0%
Prestwick	904,837	1,231,837	1,486,384	1,854,484	2,158,967	2,404,654	2,394,928	2,420,709	2,414,019	13.1%
All Scottish airports	16,785,511	18,079,331	19,783,988	21,083,500	22,554,781	23,795,285	24,436,939	25,132,285	24,348,159	4.8%
% chg		7.7%	9.4%	6.6%	7.0%	5.5%	2.7%	2.8%	-3.1%	
Total UK Airports	179,186,955	180,533,925	188,044,152	199,211,265	214,925,951	227,416,111	234,416,085	239,968,340	235,359,361	3.5%
% chg		0.8%	4.2%	5.9%	7.9%	5.8%	3.1%	2.4%	-1.9%	

Source: CAA

Appendix 2: Terminal Passengers at all Airports in the Highlands and Islands – Year-to-date 2009 versus 2008

		% chg		% chg		% chg		% chg		% chg		% chg		% chg		% chg
	Jan	prev yr	Feb	prev yr	Mar	prev yr	Apr	prev yr	May	prev yr	Jun	prev yr	Jul	prev yr	Jan - Jul	prev yr
Barra	588	16%	580	-1%	450	-45%	761	-10%	1,051	-15%	1,152	4%	1,403	6%	5,985	-3%
Benbecula	2,583	2%	2,375	-5%	2,963	-3%	2,807	11%	2,905	-4%	2,839	-2%	2,893	-9%	19,365	-1%
Campbeltown	569	2%	619	9%	802	12%	791	-6%	903	-2%	919	7%	1,018	26%	5,621	8%
Inverness	34,576	-17%	36,940	-22%	45,469	-9%	51,287	-2%	55,819	-10%	57,230	-11%	60,647	-17%	341,968	-11%
Islay	1,500	-14%	1,444	-22%	1,960	-22%	2,172	-17%	2,598	-20%	2,759	-12%	2,765	-2%	15,198	-13%
Kirkwall	8,913	-3%	8,652	-11%	10,721	-8%	10,865	-7%	12,542	-6%	13,896	4%	13,595	2%	79,184	-3%
Scatsta	19,066	-2%	19,571	1%	22,041	19%	23,587	11%	21,982	6%	24,148	31%	25,417	17%	155,812	14%
Stornoway	8,861	-3%	8,535	-13%	10,546	-6%	10,486	-8%	10,956	-9%	9,914	-16%	11,893	1%	71,191	-7%
Sumburgh	9,802	-11%	9,059	-10%	11,386	-8%	11,484	-11%	11,461	-14%	12,621	-9%	14,166	-5%	79,979	-9%
Tingwall / Lerwick	202	-2%	205	-10%	367	14%	414	1%	479	-21%	650	14%	493	-15%	2,810	-2%
Tiree	540	17%	517	0%	579	-15%	601	9%	673	-11%	753	24%	997	-8%	4,660	2%
Wick	1,522	-14%	1,575	-9%	1,984	0%	1,670	-19%	1,912	-7%	1,661	-21%	1,795	-6%	12,119	-9%
All H & I airports	88,722	-10%	90,072	-14%	109,268	-4%	116,925	-2%	123,281	-8%	128,542	-3%	137,082	-6%	793,892	-6%
Aberdeen	210,965	-8%	202,662	-16%	239,932	-8%	248,395	-11%	254,344	-14%	270,904	-9%	287,449	-9%	1,714,651	-10%
Dundee	4,714	46%	4,640	45%	5,744	68%	5,504	46%	5,954	21%	6,597	-3%	6,898	-3%	40,051	41%
Edinburgh	553,853	-6%	562,371	-12%	693,718	-4%	751,931	4%	821,216	1%	871,165	1%	955,718	6%	5,209,972	0%
Glasgow	439,456	-12%	421,364	-18%	523,786	-13%	569,408	-12%	649,479	-12%	736,308	-11%	817,245	-13%	4,157,046	-11%
Prestwick	132,820	-9%	138,512	-17%	151,058	-22%	161,657	-19%	163,492	-27%	165,469	-26%	193,009	-26%	1,106,017	-18%
All Scottish airports	1,430,530	-9%	1,419,621	-15%	1,723,506	-9%	1,853,820	-6%	2,017,766	-8%	2,178,985	-7%	2,397,401	-7%	13,021,629	-8%
Total UK Airports	14,286,817	-8%	13,842,000	-15%	16,413,525	-14%	17,850,929	-5%	19,029,288	-10%	20,465,894	-9%	23,006,285	-5%	124,894,738	-8%

Source: CAA

Appendix 3: Air Freight (tonnes) at all Airports in the Highlands and Islands 2000-2008

	2000	2001	2002	2003	2004	2005	2006	2007	2008	AAGR (00 08)
Barra	40	40	35	37	35	35	36	35	34	-1.9%
Benbecula	261	242	219	206	218	235	245	240	235	-1.3%
Campbeltown	2	2	2	2	2	2	2	1	1	-8.9%
Inverness	286	459	880	967	1,393	894	652	568	526	7.9%
Islay	171	176	191	196	200	197	245	272	275	6.1%
Kirkwall	129	111	123	227	451	138	102	108	106	-2.5%
Scatsta	0	0	0	44	0	1	0	0	0	-100.0%
Stornoway	956	714	676	655	695	725	730	765	723	-3.4%
Sumburgh	248	405	767	743	772	559	520	558	551	10.5%
Tingwall / Lerwick	79	90	98	203	413	81	86	104	144	7.8%
Tiree	28	26	26	26	25	25	25	24	23	-2.7%
Wick	5	8	3	4	6	5	5	2	2	-13.2%
All H & I airports	2,205	2,272	3,021	3,310	4,210	2,897	2,648	2,678	2,619	2.2%
% chg		3.1%	32.9%	9.6%	27.2%	-31.2%	-8.6%	1.1%	-2.2%	
Aberdeen	4,489	4,927	3,808	3,478	3,762	4,089	4,022	3,434	4,006	-1.4%
Dundee	0	0	0	0	0	0	0	0	0	-
Edinburgh	17,894	16,169	21,232	24,761	27,376	29,595	36,389	19,292	12,418	-4.5%
Glasgow	8,545	5,928	5,041	4,927	8,122	8,733	6,289	4,276	3,546	-10.4%
Prestwick	41,450	43,104	39,500	39,975	34,102	29,199	28,537	31,517	22,966	-7.1%
All Scottish airports	74,582	72,400	72,602	76,451	77,572	74,515	77,884	61,197	45,554	-6.0%
% chg		-2.9%	0.3%	5.3%	1.5%	-3.9%	4.5%	-21.4%	-25.6%	
Total UK Airports	2,311,279	2,143,281	2,193,255	2,205,934	2,368,601	2,360,984	2,314,547	2,325,239	2,282,153	-0.2%
% chg		-7.3%	2.3%	0.6%	7.4%	-0.3%	-2.0%	0.5%	-1.9%	

Source: CAA

Appendix 4: Air Mail (tonnes) at all Airports in the Highlands and Islands 2000-2008

	2000	2001	2002	2003	2004	2005	2006	2007	2008	AAGR (00-08)
Barra	41	48	48	51	52	31	0	0	0	-100.0%
Benbecula	49	46	50	80	59	64	2	2	1	-39.4%
Campbeltown	2	0	0	0	0	0	0	0	0	-100.0%
Inverness	78	78	77	33	1	5	76	4	4	-30.6%
Islay	41	48	52	55	56	49	53	54	72	7.2%
Kirkwall	32	32	32	35	32	31	27	26	21	-4.8%
Scatsta	0	1	2	1	1	28	1	1	1	25.3%
Stornoway	47	43	59	208	56	37	2	1	2	-31.9%
Sumburgh	6	5	5	4	6	3	3	4	0	-44.9%
Tingwall / Lerwick	0	0	0	0	0	0	0	0	0	-
Tiree	27	28	29	30	32	34	34	32	33	2.6%
Wick	0	0	0	0	0	0	0	0	0	-
All H & I airports	325	328	355	499	297	283	199	124	136	-10.3%
% chg		0.8%	8.4%	40.3%	-40.5%	-4.7%	-29.6%	-37.8%	9.8%	
Aberdeen	473	600	573	518	366	846	632	192	101	-17.5%
Dundee	0	0	0	0	0	0	0	0	0	-
Edinburgh	32,694	36,181	32,126	26,806	28,605	24,699	14,550	26,608	36,714	1.5%
Glasgow	2,062	1,560	895	863	736	303	81	71	79	-33.5%
Prestwick	0	0	36	20	0	32	9	0	0	-
All Scottish airports	35,554	38,669	33,985	28,707	30,004	26,162	15,470	26,995	37,030	0.5%
% chg		8.8%	-12.1%	-15.5%	4.5%	-12.8%	-40.9%	74.5%	37.2%	
Total UK Airports	222,590	213,495	187,908	177,162	218,504	210,422	187,628	205,504	234,015	0.6%
% chg		-4.1%	-12.0%	-5.7%	23.3%	-3.7%	-10.8%	9.5%	13.9%	

Source: CAA

Appendix 5: Air Transport Movements at all Airports in the Highlands and Islands 2000-2008

	2000	2001	2002	2003	2004	2005	2006	2007	2008	AAGR (00-08)
Barra	1,056	1,111	1,092	1,082	1,102	1,089	1,118	1,176	1,249	2.1%
Benbecula	2,061	2,129	2,093	2,342	2,387	2,694	2,771	2,857	2,755	3.7%
Campbeltown	941	961	980	967	971	987	962	972	978	0.5%
Inverness	8,232	8,745	9,632	12,034	14,783	16,359	16,575	15,054	13,537	6.4%
Islay	1,110	1,119	1,130	1,125	1,124	1,122	1,307	1,345	1,477	3.6%
Kirkwall	7,219	7,228	7,969	8,650	9,223	8,966	9,935	10,814	11,198	5.6%
Scatsta	10829	10758	10295	9848	9967	10408	11409	11269	10696	-0.2%
Stornoway	3,595	3,705	4,442	5,309	5,779	6,242	7,168	7,429	7,784	10.1%
Sumburgh	4,701	5,327	5,475	4,447	4,737	5,105	6,604	7,603	7,816	6.6%
Tingwall / Lerwick	1,241	663	587	585	564	1,210	1,462	1,667	1,545	2.8%
Tiree	594	599	612	615	604	605	601	606	798	3.8%
Wick	2,311	2,368	2,383	2,377	2,375	2,732	2,661	2,273	2,141	-1.0%
All H & I airports	43,890	44,713	46,690	49,381	53,616	57,519	62,573	63,065	61,974	4.4%
% chg		1.9%	4.4%	5.8%	8.6%	7.3%	8.8%	0.8%	-1.7%	
Aberdeen	78,003	83,291	79,516	76,818	80,684	89,480	97,863	102,835	100,169	3.2%
Dundee	2,354	2,602	2,762	2,803	2,383	2,356	2,339	3,188	3,644	5.6%
Edinburgh	86,150	98,228	104,839	105,179	111,768	115,959	115,846	115,190	113,535	3.5%
Glasgow	87,652	91,197	87,312	88,076	92,146	96,555	96,754	93,668	86,647	-0.1%
Prestwick	11,414	13,429	15,221	19,366	19,050	20,512	19,405	20,336	20,397	7.5%
All Scottish airports	309,463	333,460	336,340	341,623	359,647	382,381	394,780	398,282	386,366	2.8%
% chg		7.8%	0.9%	1.6%	5.3%	6.3%	3.2%	0.9%	-3.0%	
Total UK Airports	1,961,799	2,005,328	1,998,457	2,058,595	2,176,091	2,300,361	2,344,432	2,378,739	2,327,256	2.2%
% chg		2.2%	-0.3%	3.0%	5.7%	5.7%	1.9%	1.5%	-2.2%	

Source: CAA

Appendix 6: Facilities and opening hours at the major airports of the region, 2009

Airport	Opening Hours *(ref: AIP Textual Data)*		Facilities
	Summer	Winter	
Barra	Mon, Thu, Fri 0845-1410; Tue/Wed 0845-1115 or Mon, Thu, Fri 1015-1530; Tue/Wed 1300-1530; Sat 1015-1410; and by arrangement with AD operator (HIAL). **Dependent on tides**	Mon-Fri 0945-1215 or 1400-1630; Sat 1215-1330; and by arrangement with AD Operator (HIAL). **Dependent on tides**	RFF Cat 3 3 runways: sand 799m x 60m 680m x 46m 846m x 46m
Benbecula	Mon-Fri 0700-1645; Sat 0700-0930, 1100-1145, 1500-1645; Sun 0930-1100.	Mon-Fri 0800-1745; Sat 0800-1030, 1200-1245, 1600-1745; Sun 1030-1200	JET A1 provided by prior arrangement by Loganair Fuels. Limited handling provided by BA. RFF Cat 4 (Cat 5 and 6 available by arrangement) 2 runways: asphalt 1836m x 46m 1220m x 46m
Campbeltown	Mon-Fri 0840-1645; and by arrangement with AD operator (HIAL).	Mon-Fri 0940-1745; and by arrangement with AD operator (HIAL).	RFF Cat 3. Cat 4 available by prior arrangement. RFF Cat 2 Mon-Fri, 1315-1545 (winter), Mon-Fri, 1215-1445 (summer). Cat 3 & 4 available on request. 1 runway: asphalt 3049m x 46m
Inverness	Mon-Sat 0530-2030; Sun 0545-2030.	Mon-Fri 0630-2130; Sat 0630-1915; Sun 0815-2130.	Limited cargo facilities. JET A1 & AvGas available Full de-icing facilities RFF Cat 6. Cat 7 available by prior arrangement 2 runways: asphalt 1887m x 46m 700m x 46m
Islay	Mon-Fri 0800-1730; Sat 0800-0900; Sun 1630-1730.	Mon-Fri 0900-1830; Sat 0900-1000; Sun 1730-1830.	AvGas available. RFF Cat 4. RFF Cat 5 available by prior arrangement. RFF Cat 2. Tue, Wed: 1100-1170. RFF Cat 3, 4 and 5 available by prior arrangement. 2 runways: asphalt 635m x 18m 1545m x 46m

Kirkwall	Mon-Fri 0630-1845; Sat 0630-1745; Sun 0800-1845; and by arrangement with Aerodrome operator (HIAL).	Mon-Fri 0730-1945; Sat 0730-1845; Sun 0900-1945; and by arrangement with Aerodrome operator (HIAL).	JET A-1, AvGas by arrangement with AirBP. RFF Cat 4. Cat 5 available by prior arrangement. 2 runways: asphalt 1428m x 46 680m x 18m
Stornoway	Mon-Fri 0600-1845; Sat 0600-1500, 1530-1645; Sun 1300-1430, 1530-1715; and by arrangement with AD operator (HIAL).	Mon-Fri 0700-1945; Sat 0700-1600, 1630-1745; Sun 1635-1820; and by arrangement with AD operator (HIAL).	JET A1 and AvGas. Handlers: Loganair and Highland Airways RFF Cat 4. RFF Cat 5 & 6 available by arrangement 2 runways: asphalt 2315m x 46m 1000m x 23m
Sumburgh	Mon-Fri 0615-1915; Sat 0745-1615; Sun 0930-1915.	Mon-Fri 0715-2015; Sat 0845-1715; Sun 1030-2015.	JET A1 and AvGas available from BP Oil. RFF Cat 5 Mon-Fri. RFF Cat 4 Sat, Sun. RFF Cat 5 & 6 available at other times on request 3 runways: asphalt 1500m x 45m 1426m x 46m 550m x 45m
Tiree	Mon-Fri 0900-1400; Sat 0830-1000; and by arrangement with AD operator (HIAL).	Mon-Fri 1000-1500; Sat 0930-1100; and by arrangement with AD operator (HIAL).	RFF Cat 3. RFF Cat 4 by arrangement 3 runways: 2 asphalt, 1 concrete 1472m x 30m 799m x 19m 600m x 18m
Wick	Mon-Fri 0600-1730; 1800-1930; Sat 0745-0924 and 1000-1345; and by arrangement with AD operator (HIAL).	Mon-Fri 0700-1830; 1900-2030; Sat 0845-1024 and 1100-1445; and by arrangement with AD operator (HIAL).	Fuel, de-icing and cargo facilities handled by Far North Aviation RFF Cat 4. Cat 5 or 6 available by prior arrangement. 2 runways: 1 asphalt and 1 grooved asphalt 1825m x 45m 1036m x 45m
Coll	Mon and Wed 0730 - 0845 and 1630 - 1745; and by arrangement with the Aerodrome operator (Argyll and Bute Council, c/o Oban Airport).	Mon-and Wed 0830 - 0950 and 1445 - 1600; and by arrangement with the aerodrome operator (Argyll and Bute Council, c/o Oban Airport).	RFF Cat 2 1 runway: asphalt 500m x 18m
Oban	Mon-Thu 0730-1700;	0830 - 1630 or sunset if	JET A1 and AvGas available by prior

	Fri-Sun 0800-1700 and by arrangement with the Aerodrome operator (Argyll and Bute Council, c/o Oban Airport).	earlier.	arrangement with TLC Ltd RFF Cat 2. Cat 3 available by arrangement 1 runway: asphalt 1263m x 30m
Scatsta	0630-1830	0730-1930	JET A1 fuel and de-icing facilities available. RFF Cat 5, 0730-1730 (winter), 0630-1630 (summer). RFF Cat H2, 1730-1930 (winter), 1630-1830 (summer). 1 runway: asphalt 1360m x 31m
Tingwall / Lerwick	Mon-Fri 0730-1600. Sat 0930-1400 (May to Oct only).	Mon-Fri 0830-1700	AvGas, no facilities. RFF Cat 1 1 runway: asphalt 764m x 18m

Source: UK AIP

Appendix 7: Routes operated to, from and within the Highlands and Islands; September 2009

	Loganair (in association with flybe)		Highland Airways		Loch Lomond Seaplanes		Directflight		flybe		easyJet		Eastern Airways	
Routes Operated Sept. 09	Inverness	Edinburgh	Inverness	Stornoway	Glasgow (Clyde)	Tobermory	Lerwick	Fair Isle	Inverness	London Gatwick	Inverness	Bristol	Aberdeen	Stornoway
	Inverness	Kirkwall	Stornoway	Benbecula	Glasgow (Clyde)	Oban	Lerwick	Foula	Inverness	Manchester	Inverness	London Gatwick	Aberdeen	Wick
	Inverness	Sumburgh	Oban	Coll			Lerwick	Skerries	Inverness	Birmingham	Inverness	London Luton		
	Inverness	Stornoway	Oban	Colonsay			Lerwick	Papa Stour	Inverness	Belfast City				
	Edinburgh	Wick	Oban	Tiree			Sumburgh	Fair Isle						
	Edinburgh	Kirkwall	Coll	Tiree										
	Edinburgh	Sumburgh												
	Edinburgh	Stornoway												
	Glasgow	Kirkwall												
	Glasgow	Sumburgh												
	Glasgow	Stornoway												
	Glasgow	Benbecula												
	Glasgow	Barra												
	Glasgow	Islay												
	Glasgow	Tiree												
	Glasgow	Campbeltown												
	Benbecula	Barra												
	Kirkwall	Aberdeen												
	Kirkwall	Sumburgh												
	Kirkwall	Eday												
	Kirkwall	North Ronaldsay												
	Kirkwall	Papa Westray												
	Kirkwall	Sanday												
	Kirkwall	Stronsay												
	Kirkwall	Westray												
	Sumburgh	Aberdeen												

Source: Airline websites

Appendix 8: Loganair and Eastern Airways aircraft utilisation rates

Loganair		Passenger Flights	Passenger Flight Hours	Average flight Duration (mins)	Passengers	PLF %	No. of Aircraft	Average Utilisation per aircraft per day
2008	De Havilland DH6 Twin Otter	2,336	1,854	0.48	20,275	44.3%	2	2.5
	Pilatus BN-2A Islander	6,989	1,115	0.10	28,193	51.2%	3	1.0
	Saab Fairchild 340	25,595	23,549	0.55	466,055	55.3%	16	4.0
	Total	34,920	26,517	0.46	514,523	55.0%	21	3.5
2000	De Havilland DH6 Twin Otter	2,261	1,643	0.44	16,757	40.5%	2	3.3
	Pilatus BN-2A Islander	5,027	1,184	0.14	16,068	44.2%	5	0.7
	Saab Fairchild 340	5,460	4,240	0.47	85,760	60.5%	3	4.6
	Shorts 360	5,214	3,923	0.45	81,219	50.3%	4	2.7
	Total	17,962	10,990	0.37	199,804	54.6%	14	2.4

Eastern Airways		Passenger Flights	Passenger Flight Hours	Average flight Duration (mins)	Passengers	PLF %	No. of Aircraft	Average Utilisation per aircraft per day
2008	Bae Jetstream 41	22,372	20,824	0.56	301,076	47.5%	22	2.6
	Saab 2000	8,038	8,316	0.62	188,184	48.5%	6	3.8
2003	Bae Jetstream 31/32	5,828	6,433	0.66	52,737	55.1%	9	2.0
	Bae Jetstream 41	4,860	4,393	0.54	66,137	47.1%	12	1.0

Source: CAA

Appendix 9: Scheduled domestic routes operated between 2000 and 2008

Route		2000	2001	2002	2003	2004	2005	2006	2007	2008
Barra	Benbecula	2,509	3,021	2,767	2,453	2,187	2,042	1,731	1,721	1,656
Barra	Glasgow	4,869	5,586	5,547	5,865	6,597	7,424	8,077	8,706	9,066
Barra	Total	7,378	8,607	8,314	8,318	8,784	9,466	9,808	10,427	10,722
Benbecula	Barra	2,509	3,021	2,767	2,453	2,187	2,042	1,731	1,721	1,656
Benbecula	Glasgow	21,297	21,296	19,642	20,498	18,787	20,986	22,582	24,286	25,201
Benbecula	Inverness							1,071	1,404	18
Benbecula	Stornoway	8,989	9,684	9,141	8,965	8,846	9,011	8,698	8,249	7,330
Benbecula	Total	32,795	34,001	31,550	31,916	29,820	32,039	34,082	35,660	34,205
Campbeltown	Glasgow	7,069	8,003	8,142	8,225	8,337	8,736	8,773	8,643	9,072
Campbeltown	Islay				11	45	45	132	69	
Campbeltown	Total	7,069	8,003	8,142	8,236	8,382	8,781	8,905	8,712	9,072
Inverness	Benbecula							1,071	1,404	18
Inverness	Belfast City							903	24,393	22,618
Inverness	Belfast Intl						29,202	39,801		
Inverness	Birmingham				1,564	12,652	15,309	18,107	15,092	24,947
Inverness	Bristol						41,298	82,487	82,123	73,960
Inverness	East Midlands								33,514	40,185
Inverness	Edinburgh		1,509	7,810	12,626	17,106	17,130	15,315	10,513	7,510
Inverness	Exeter									5,824
Inverness	London Gatwick	156,598	151,998	158,901	224,426	247,828	235,041	240,771	221,550	242,645
Inverness	Glasgow	12,814	20,618	27,717	21,337	6,203	5,640	1,897		
Inverness	London Heathrow					46,945	65,745	50,940	53,549	7,899
Inverness	Kirkwall	4,822	9,764	14,189	15,963	16,394	18,506	22,014	25,867	25,085
Inverness	Leeds Bradford							4,685	2,231	815
Inverness	Liverpool							14,464	43,760	
Inverness	London Luton	108,072	112,581	111,743	112,380	115,022	102,347	100,354	102,185	102,495
Inverness	Manchester				14,445	15,188	18,065	20,630	16,719	42,890
Inverness	Newcastle							916		
Inverness	Southampton								3,330	14,862
Inverness	Stornoway	19,860	23,818	26,221	28,375	31,010	33,025	32,385	36,403	35,636
Inverness	Sumburgh	6,724	3,894	1,040	118	222	97	158	80	158
Inverness	Wick						183			
Inverness	Total	308,890	324,182	347,621	431,234	508,570	581,588	646,898	672,713	647,547
Islay	Campbeltown				11	45	45	132	69	
Islay	Glasgow	18,678	19,609	20,833	21,512	21,495	21,819	25,993	28,443	29,338
Islay	Total	18,678	19,609	20,833	21,523	21,540	21,864	26,125	28,512	29,338
Kirkwall	Aberdeen	35,408	36,979	40,287	40,465	38,770	39,119	42,228	42,738	44,177
Kirkwall	Edinburgh	24,995	28,853	27,977	20,446	20,697	20,423	23,226	29,229	35,656
Kirkwall	Glasgow	1,407	6,266	5,363	5,750	6,698	6,940	11,649	15,466	15,055
Kirkwall	Inverness	4,822	9,764	14,189	15,963	16,394	18,506	22,014	25,867	25,085
Kirkwall	Outer Islands	12,333	13,411	15,552	18,027	17,892	19,088	19,002	21,089	20,404
Kirkwall	Sumburgh	6,200	7,243	7,252	6,618	5,799	6,230	7,045	8,998	8,709
Kirkwall	Wick	2,447	4,511	8,355	9,942	8,932	27	4,962	2,190	
Kirkwall	Total	87,612	107,027	118,975	117,211	115,182	110,333	130,126	145,577	149,086
Oban	Tiree									440
Oban	Total									440
Stornoway	Aberdeen							5,305	6,750	7,113
Stornoway	Benbecula	8,989	9,684	9,141	8,965	8,846	9,011	8,698	8,249	7,330
Stornoway	Edinburgh	8,428	11,065	13,285	24,267	31,032	29,755	27,136	25,249	28,320
Stornoway	Glasgow	49,845	47,932	47,823	45,918	42,031	45,853	50,238	53,790	58,144
Stornoway	Inverness	19,860	23,818	26,221	28,375	31,010	33,025	32,385	36,403	35,636
Stornoway	Total	87,122	92,499	96,470	107,525	112,919	117,644	123,762	130,441	136,543
Sumburgh	Aberdeen	74,220	74,046	71,079	62,341	60,845	63,004	64,680	68,817	68,357
Sumburgh	Edinburgh	13,780	15,914	16,663	15,186	15,802	21,901	23,297	26,749	30,801
Sumburgh	Fair Isle	137	144	208	185	159	434	94	139	211
Sumburgh	Glasgow	28,311	16,539	12,327	15,435	14,379	14,989	15,104	16,489	17,227
Sumburgh	Inverness	6,724	3,894	1,040	118	222	97	158	80	158
Sumburgh	Kirkwall	6,200	7,243	7,252	6,618	5,799	6,230	7,045	8,998	8,709
Sumburgh	Out Skerries						24			
Sumburgh	London Stansted							69	2,493	2,108
Sumburgh	Unst	1,305	238							
Sumburgh	Wick	252	1,723	569	33	1,431	9,146	3,393		
Sumburgh	Total	130,929	119,741	109,138	99,916	98,637	115,825	113,840	123,765	127,571
Tingwall	Fair Isle	1,591	1,957	2,075	2,066	2,341	2,316	2,327	2,728	2,591
Tingwall	Foula						1,107	1,342	1,407	1,380
Tingwall	Out Skerries						425	486	694	625
Tingwall	Papa Stour						183	225	155	135
Tingwall	Outer Islands						7			
Tingwall	Unst	46	26							
Tingwall	Total	1,637	1,983	2,075	2,066	2,341	4,038	4,380	4,984	4,731
Tiree	Glasgow	4,641	5,244	5,302	5,325	5,637	6,745	7,015	7,417	7,894
Tiree	Oban									440
Tiree	Total	4,641	5,244	5,302	5,325	5,637	6,745	7,015	7,417	8,334
Wick	Aberdeen	8,376	7,986		6,237	5,992	9,863	12,610	14,793	16,539
Wick	Edinburgh		103	22	5,831	5,980	4,895	4,761	5,976	7,255
Wick	Glasgow						22			
Wick	Inverness						183			
Wick	Kirkwall	2,447	4,511	8,355	9,942	8,932	27	4,962	2,190	
Wick	Newcastle	7,685	2,112							
Wick	Sumburgh	252	1,723	569	33	1,431	9,146	3,393		
Wick	Total	18,760	16,435	8,946	22,043	22,335	24,136	25,726	22,959	23,794

Source: CAA

Appendix 10: Air Fares on major routes to, from and within the Highlands and Islands (analysed on 28.09.09)

			Duration	Distance		Week comm:	Fares		£ per mile			Maximum Fare	Variance
						28.09.09	05.10.09	26.10.09	28.09.09	05.10.09	26.10.09	2001	
			Mins	Mls	Kms	1 day	1 week	1 month	1 day	1 week	1 month		%
Loganair													
Inverness	Edinburgh		50	113	181	£ 160.30	£ 160.30	£ 87.30	£ 1.42	£ 1.42	£ 0.77	£ 163	-1.7%
Inverness	Kirkwall		45	106	170	£ 242.20	£ 232.20	£ 133.20	£ 2.28	£ 2.19	£ 1.26	£ 190	27.5%
Inverness	Sumburgh		100	209	336	£ 328.20	£ 308.20	£ 160.20	£ 1.57	£ 1.47	£ 0.77	£ 276	18.9%
Inverness	Stornoway		40	97	155	£ 222.20	£ 208.20	£ 126.20	£ 2.29	£ 2.15	£ 1.30	£ 150	48.1%
Edinburgh	Wick		70	173	279	£ 324.30	£ 304.30	£ 229.30	£ 1.87	£ 1.76	£ 1.33	£ 270	20.1%
Edinburgh	Kirkwall		80	207	333	£ 386.30	£ 366.30	£ 254.30	£ 1.87	£ 1.77	£ 1.23	£ 328	17.8%
Edinburgh	Sumburgh		90	302	486	£ 394.30	£ 374.30	£ 340.30	£ 1.31	£ 1.24	£ 1.13	£ 372	6.0%
Edinburgh	Stornoway		120	193	310	£ 314.30	£ 314.30	£ 129.30	£ 1.63	£ 1.63	£ 0.67	£ 275	14.3%
Glasgow	Kirkwall		75	217	349	£ 386.30	£ 366.30	£ 169.30	£ 1.78	£ 1.69	£ 0.78	£ 328	17.8%
Glasgow	Sumburgh		90	317	509	£ 394.30	£ 384.30	£ 287.30	£ 1.24	£ 1.21	£ 0.91	£ 386	2.2%
Glasgow	Stornoway		65	180	289	£ 324.30	£ 304.30	£ 109.30	£ 1.80	£ 1.69	£ 0.61	£ 252	28.7%
Glasgow	Benbecula		60	162	261	£ 324.30	£ 304.30	£ 182.30	£ 2.00	£ 1.88	£ 1.13	£ 252	28.7%
Glasgow	Barra	*	70	145	233	£ 132.00	£ 132.00	£ 122.00	£ 0.91	£ 0.91	£ 0.84	£ 183	-27.9%
Glasgow	Islay		40	79	127	£ 184.20	£ 174.20	£ 97.20	£ 2.33	£ 2.21	£ 1.23	£ 132	39.5%
Glasgow	Tiree	*	55	110	176	£ 124.00	£ 94.00	£ 84.00	£ 1.13	£ 0.85	£ 0.76	£ 144	-13.9%
Glasgow	Campbeltown	*	40	62	100	£ 82.00	£ 55.00	£ 55.00	£ 1.32	£ 0.89	£ 0.89	£ 116	-29.3%
Benbecula	Barra		25	32	52	£ 50.00	£ 50.00	£ 50.00	£ 1.56	£ 1.56	£ 1.56	No record of historical fares	
Kirkwall	Aberdeen		50	123	197	£ 310.10	£ 284.10	£ 240.10	£ 2.52	£ 2.31	£ 1.95	£ 252	23.1%
Sumburgh	Kirkwall		35	104	168	£ 196.20	£ 164.20	£ 90.20	£ 1.89	£ 1.58	£ 0.87	£ 152	29.1%
Sumburgh	Aberdeen		100	208	334	£ 354.10	£ 334.10	£ 290.10	£ 1.70	£ 1.61	£ 1.39	£ 268	32.1%
Highland Airways													
Oban	Coll	*	40	43	69	£ 79.98	£ 79.98	£ 69.98	£ 1.86	£ 1.86	£ 1.63	Not operated in 2001	
Coll	Tiree	*	15	13	20	£ 41.07	£ 41.07	£ 36.07	£ 3.16	£ 3.16	£ 2.77	Not operated in 2001	
Inverness	Stornoway	*	35	97	152		£ 209.98	£ 169.98	£ -	£ 2.16	£ 1.75	Not operated in 2001	
flybe													
Inverness	London Gatwick		110	468	753	£ 375.98	£ 310.98	£ 134.98	£ 0.80	£ 0.66	£ 0.29	No record of historical fares	
Inverness	Manchester		85	298	477	£ 409.98	£ 237.98	£ 115.98	£ 1.38	£ 0.80	£ 0.39	No record of historical fares	
Inverness	Birmingham		90	363	582	£ 174.98	£ 142.98	£ 99.98	£ 0.48	£ 0.39	£ 0.28	No record of historical fares	
Inverness	Belfast City		65	214	344	£ 177.98	£ 121.98	£ 137.98	£ 0.83	£ 0.57	£ 0.64	No record of historical fares	
easyJet													
Inverness	Bristol		80	429	690	£ 128.48	£ 64.98	£ 64.98	£ 0.30	£ 0.15	£ 0.15	No record of historical fares	
Inverness	London Gatwick		100	468	753	£ 159.98	£ 105.98	£ 120.98	£ 0.34	£ 0.23	£ 0.26	No record of historical fares	
Inverness	London Luton		90	419	674	£ 141.98	£ 104.98	£ 60.98	£ 0.34	£ 0.25	£ 0.15	No record of historical fares	
Eastern Airways													
Wick	Aberdeen		35	92	149	£ 244.50	£ 244.50	£ 177.50	£ 2.66	£ 2.66	£ 1.93	£ 244	0.2%
Stornoway	Aberdeen		55	168	271	£ 272.50	£ 272.50	£ 201.50	£ 1.62	£ 1.62	£ 1.20	Not operated in 2001	
Routes operated in 2001, not in 2009 (all Loganair)													
Wick	Sumburgh		-	136	219	-	-	-	-	-	-	£ 160	-
Wick	Kirkwall		-	34	55	-	-	-	-	-	-	£ 54	-
Glasgow	Inverness		-	114	184	-	-	-	-	-	-	£ 163	-