



EU INTERREG III B Programme

The SEAPLANE Project

Sustainable and Efficient Air Transport - Platform for Linked Analysis
of the North Sea Air Transport Environment



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Annex 4

Importance of adequate scheduled air services for peripheral regions: The case of Inverness (Management Summary)

1. Introduction

Especially for remote regions, which usually suffer from large surface distances and thus travel times to economic centres, air transportation is an important mode to narrow the accessibility gap, and move closer to inter-regional markets. Thus, a regional airport's integration into the national and trans-national air transport schedule is very likely to have a positive impact on regional economic development.

The following investigation demonstrates that the shifting of the daily Inverness-London connection from Gatwick to Heathrow, thus giving Inverness passengers better access to connecting flights to other international commercial centres, leads to an increase in airport passenger potential of at least 55,000 passengers or 15% of total passengers handled at Inverness Airport. Moreover, the analysis highlights that the thus improved regional accessibility induces at least 54 new workplaces in the catchment area of Inverness Airport and increases annual regional salaries and wages by at least £ 1 million.

2. Catchment Area of Inverness Airport

A total of 226 thousand persons live in the economic catchment area (Highland and Moray Council Areas) of Inverness Airport constituting about 4.7 percent of all Scottish residents. With just over 8 persons per km² the population density of the area is among the lowest in the UK.

The economic structure of the catchment area of Inverness Airport is dominated by small and medium enterprises. Major regional business activities are focused on a medical healthcare cluster with significant research activities of international standard. Also, tele-service, precision engineering, information service and other high tech companies are major regional employers. Another sector of regional importance is food and drink production and processing (especially whisky distilling). Oil fabrication-related business is still relatively large around Inverness, though on the decline, while other industrial production activities like aluminium smelting and papermaking are of local significance only. Scotland's most important trade partner for manufactured goods is the EU followed by North America.

Albeit the importance of the manufacturing businesses, the whole catchment area is very much depending on the service sector, especially tourism. However, though about 60 percent of Inverness Airport passengers travel for leisure these constitute only a very small fraction of Highland & Islands tourists.

In 2002, average monthly wages in the region stood at around £ 1,900 for services related to airport activities and £ 1,250 in tourism and recreational services.¹

3. Inverness Airport

End of 2003 a total of about 360 staff (including staff of Highland & Islands Airport Limited working at the Airport) were employed at Inverness Airport, 160 of which were airport operations staff with the remaining 200 not directly related to the level of airport activity. Based on the number of airport operations staff and

given that Inverness Airport handled 460 thousand passengers in 2003, the airport has an employment density of 350 employees per one million passengers per annum (mppa).

According to Input-Output tables calculated by the Scottish Executive every job in Scottish air transportation creates about 1.7 jobs nation-wide outside this sector. In order to catch only the regional indirect and induced employment effects from airport activities the respective employment multiplier is marginally adjusted to 1.5.

If we consider that 360 employees are directly depending on Inverness airport, the additional employment effect for the region would be 540 work places. Thus, total airport related regional employment is in the range of 900 work places.

Also, from Input-Output tables it can be derived that for every one £ airport companies spend on salaries an additional £ 1.1 are generated in other sectors of the national economy. Again, in order to catch only the regional income effects the income multiplier is marginally adjusted to 1.0.

Assuming that the current average wage at the airport is £ 1,900 per month, the total income of all direct airport employees would amount to about £ 8.2 million per annum. Given above income multiplier, the airport would generate additional annual income of £ 8.2 million for employees of other branches throughout the region. Thus, in 2003 the airport directly and indirectly generated more than £ 16.4 million in annual income.

With respect to additional catalytic effects the regional decision makers acknowledge the development of Inverness Airport as one of the key issues that need to be tackled in the near future. An airport bringing the region closer to national and international markets will further emphasise regional comparative advantages.

Catalytic effects are also reflected by the importance of the airport for incoming tourism. If we assume² that about 30 percent of passengers handled at Inverness Airport are incoming tourist then about 140 thousand tourists reached Highlands & islands via this Airport in 2003, around 40 thousand of which would not have come to the region if sufficient air services were not available. Tourists stay an average of four nights during which they spend about £ 180. This amounts to £ 7.2 million in annual tourist spending which are generated by the mere existence of air services. 2001 data suggests that about £ 40,500 in revenues from tourist spending supports one work place in the Highlands & Islands tourism sector³, thus 178 work places in this sector with a total wage sum of about £ 2.7 million are depending on the airport. Multipliers derived from Input-Output tables indicate that one work place in tourism supports 0.4 work places outside this sector and one £ earned in tourism generates £ 0.6 outside tourism. Thus, the total effect of the airport on tourism-related employment would be 250 work places and £ 4.3 million in wages and salaries.

It can be stated that direct, indirect and catalytic effects of Inverness Airport amount to a minimum of 1,150 work places with a total sum of annual wages and salaries of at least £ 20.7 million effective in the wider catchment area of the airport.

Table 1: Effects of airport-related activities on the catchment area of Inverness Airport, 2003

	Direct and indirect effects	Catalytic effects (from tourism)	Total effects
Work places	900	250	1,150
Annual salaries and wages (in million £)	16.4	4.3	20.7

4. Direct Air Connection to London-Heathrow

In order to positively impact on branches of inter-regional importance not only the availability and quality of regional airport facilities (e.g. length of runway) and services (e.g. hours of operation) is important but especially the timing and frequency of air services to the “right” national and international hubs.

Specifically, in how far does a better service connection to an international hub impact on regional accessibility and significance of the airport for regional economic activity?

In a case study for Inverness Airport the effect has been quantified by assuming that the connection to London-Gatwick (LGW) had been replaced by regular flights to London-Heathrow (LHR), with the same flight schedule (three times a day) and types of aircraft.

With the help of a well-established air transport computation model air passenger volumes have been calculated based on actual trips undertaken in 2000. In this ex-post analysis, the model mirrors shifts of passengers between competing airports and between modes only. The model does not take account of induced/generated traffic, thus it does not provide any information on the additional benefit (e.g. in terms of additional tourists) the improved service would generate (catalytic effect).

Results from computation indicate that if in 2000 Inverness would have offered services to Heathrow rather than to Gatwick, the number of passengers handled at Inverness Airport would have increased by more than 55 thousand (of which about 23 thousand business travellers) to 415 thousand from 360 thousand.

In 2000, Inverness Airport had about 350 staff, of which 140 staff in airport operations and thus an airport employment density of about 390 employees per mppa. An additional 55 thousand passengers would have induced about 22 additional direct airport employees, and thus given a.m. employment multiplier a further 32 indirectly airport-related employees in the region. Thus, the above mentioned total direct and indirect airport-related employment would have increase to 929 from 875.

These 54 additional staff would have increased the total sum of income paid to airport related employment (excluding catalytic effects) by about £ 1.0 Million per year to £ 16.1 million from £ 15.1 million.

Table 2: Impact of shifting air services between London airports on Inverness Airport and the respective catchment area, 2000

	Existing connection to London-Gatwick	Model case: connection to London Heathrow	Change
Number of passengers handled	360,000	415,000	+55,000
Airport related regional employment, number of employees (excluding catalytic effect)	875	929	+54
Airport related regional salaries and wages (excluding catalytic effect, in m £ per annum)	15.1	16.1	+1.0

N.B.: The above calculation does not consider induced effects, i.e. additional passengers travelling to the Highland region because of the London Heathrow link. As the applied model does not compute induced effects above figures should be seen as minimum values. Moreover, it should be stressed that employment and salary effects do not contain catalytic effects.

(Footnotes)

¹ Estimates based on 1999 data for “average gross weekly earnings of full-time employees by occupational group, Scotland and GB (Office for National Statistics).

² This assumption is based on results of the passenger analysis made by Hightrans for the Luton-Inverness service.

³ Figures derived from tourism data on total tourism expenditures and tourism-related employment collected by VisitScotland.