

Report to Partnership Meeting 26 April 2013

RESEARCH AND STRATEGY DELIVERY

Skye Air Service Feasibility Study

PURPOSE OF REPORT

The purpose of this report is to introduce the Executive Summary of the key findings reported by the consultants that undertook the Skye Air Service Feasibility Study and outline the proposed next steps required to help establish the case for reintroducing scheduled flights to Ashaig Airport on Skye.

A copy of the full report is available to download on the HITRANS website at the link below:
http://www.hitrans.org.uk/documents/Skye_Air_Service_Feasibility_Study.pdf

Executive Summary

Business Survey

Over the course of two and a half months, RDC Aviation hosted an online survey to gather opinions on air services to and from Skye. As part of this survey, a total of 919 people responded to the survey (either in part or in whole).

After cleansing the data for duplicate and very incomplete responses, a total of 684 responses were used to inform the wider analysis. The survey was promoted through a range of media outlets and through social media websites to gain as wide a range of opinions and from as many sectors of society/potential users as possible.

The survey results have been used to help identify the appropriate fares which people would be willing to pay, confirming that the area considered as Skye's catchment area is realistic (based on the post codes of respondents) and providing context around the requirements and importance of an air service for Skye residents. Some analysis is detailed throughout the full report and the survey results are summarised in Appendix A.

Forecast outputs

The current unconstrained demand for air services from Skye to Glasgow/Edinburgh is estimated to be of the order of 21,500 passengers per annum.

Twin Otters, Trislanders and Dornier 228, each having a seat capacity of around 19 seats, can operate within the 750m length restrictions of the current airstrip, without significant restrictions to payload.

Runway lengths in excess of 1100-1200m would be required in order to accommodate potentially available aircraft which have a significant increase in seat capacity (30-35 seats). Runways of this length have a more onerous infrastructure requirement, which would have costs likely greater than £15m (based on previous studies) and considerable impact on the adjacent coastline.

A 12x weekly service for a 19-seat aircraft would have a theoretical capacity of 23,712 seats per annum but would therefore require an unrealistically high load factor to satisfy this unconstrained demand.

Bottom-up forecasts based on this service pattern predict throughput of around 14,500 passengers per annum with a more realistic average load factor of 62%.

Infrastructure

The introduction of instrument navigation approach systems is likely to significantly increase the reliability of operations in periods of low visibility.

However, further work on approach procedure minima (the routes and heights an aircraft must fly on approach to landing) and a greater understanding of the local weather conditions is needed to quantify this.

GNSS (Global Navigation Satellite Systems) could provide significant cost benefits compared to a conventionally designed ILS navigation guidance system and runway infrastructure.

The runway clearances, strip width and RESA requirements associated with GNSS approach procedures at small aerodromes are being studied by HIAL. If the emerging findings of this work are accepted by the CAA, significant infrastructure upgrades (required in the CAA's document CAP168) might not be needed for GNSS approaches at airstrips such as Broadford.

CAPEX and Operating Costs

If this is the case, investment of around £2.3-2.8m would be needed to construct additional facilities such as a terminal building, aprons, rescue and fire fighting facilities etc. in order to support a 12x weekly scheduled service by Twin Otter or similar aircraft.

This estimate assumes that agreement is reached with parties such as the DfT on security fencing, the airline operators on hangars and Fire Authorities on facilities to minimise initial investment needs. If these discussions prove unfavourable, additional investment of up to £2m might be needed.

If the CAA requires the airstrip to be designed for the full requirements of CAP168 for instrumented runways then the Capex required could be up to £9.7-15.3m depending on if the CAA insist on the full recommended RESA lengths rather than accepting the minimum specified length in CAP168.

The operation of the existing airstrip without CAP168 upgrade and with minimum facilities (Option A) is estimated to require an average Operating and Maintenance budget of around £550-660k per annum.

This could be partially offset by an income of around £150,000 per annum from aeronautical revenue.

Commercial Model

Based on the commercial analysis of airline costs the required break even one-way fare (including 10% profit margin) ranges from £110-£175 for Glasgow services and £120-£200 for Edinburgh services, assuming the aircraft is dedicated to this route.

Fares within the lower end of this range are considered to be at a level that passengers might be willing to pay based on benchmark comparisons and the user survey feedback.

On this basis, the operation of unsubsidised services are likely, at best, to be only marginally viable. It is more likely that assistance, both financially and in terms of marketing and other support, would be needed to attract airlines to establish and maintain regular scheduled air services to Skye.

Aircraft availability is likely to be an important issue. Operators seek to operate as few different types of aircraft as possible to simplify availability of spares and crew training. There are relatively few operators that have the appropriate equipment for serving the airport at Ashaig. The potential return (profit) is unlikely to be large enough/attractive enough to warrant obtaining new equipment and therefore the number of potential operators will be limited.

There is no evidence of substantial willingness to over-pay above the break even fares derived from the airline cost analysis. Therefore there is unlikely to be high potential for 'upside' for airline revenues, limiting the attractiveness for them to invest without a PSO1 being in place to protect them contractually.

As it is likely that the airport would require an operating subsidy, there may be an expectation by the airlines that subsidies would also extend to air services.

Whilst PSO is likely to be the preferred model for operators, it's not the only option. Marketing support or some form of risk share may be acceptable. However, this may not achieve the guaranteed commitment to a fixed period of flying in the same way as a PSO provides.

Cost Benefit Analysis

A range of Benefit Cost Ratio (BCR) scenarios has been tested for Option A, based on the data derived in the report. Option A represents the lowest cost airport option based on the existing runway length. Air services assume a Twin Otter 300 series operating a twice-daily (12 return trips per week) service and a single aircraft dedicated to the route.

Other options have significantly greater airport costs but do not provide additional passenger or tourism benefits.

The table below indicates the base, lower and upper bound estimates of costs and benefits used, expressed as a Net Present Value (NPV) using a 3.5% discount rate to 2012 prices with a 30 year evaluation period

Costs	NPV (Discount rate of 3.5% to 2012 over 30 years)		
	Base	Lower	Upper
Airport CAPEX	(£2.5m)	(£2.3m)	(£2.8m)
Airport OPEX and Maintenance	(£11.2m)	(£10.3m)	(£12.4m)
Airline subsidies (PSO/ADS Costs)	(£3.7m)	(£1.4m)	(£7.6m)
Airport Revenue (Landing charges etc.)	£3.1m	£3.1m	£3.1m
Total	(£14.3m)	(£10.9m)	(£19.7m)

Benefits	NPV (Discount rate of 3.5% to 2012 over 30 years)		
	Base	Lower	Upper
Time savings benefits	£11.5m	£9.8m	£13.3m
Tourism benefits	£2.1m	£1.8m	£2.5m
Total	£13.6m	£11.6m	£15.8m

CAPEX costs are based on the minimum capital investment Option A as outlined in Section 3.4 with a cost range of £2.3-£2.8m spread over two years. Operational & Maintenance costs are based on those derived in Section 3.5 of the main report.

Airline subsidies are based on the range of estimates included in Section 4.3 for Twin Otter series 300 services to Glasgow and cover requirements to support airline operating costs including airport charges.

Airport revenues are taken at £150k per annum from landing charges and other aeronautical and non-aeronautical revenues as discussed in the same section of the report, and increased each year in proportion to the forecast traffic growth.

Tourism benefits, also derived in Section 4.3, are based on the estimate of stimulated visitor spend which is additional for Scotland as a whole. This is only a proportion of the stimulated visitor spend within Skye as discussed in the economic appraisal section of the report.

Based on the inputs tabulated above, the BCR using the BASE assumptions is estimated to be 0.95. A variety of scenarios has also been assessed with those tested falling within a range of 0.75 to 1.13

This analysis is based on dedicated use of a Twin Otter 300 series operating 12 return trips to Glasgow. Higher leasing costs of a new Twin Otter 400 series might increase the airline subsidy required by approximately £200,000 per annum and result in a BCR of around 0.76, if all other assumptions remain the same as the Base Case. However, this assumes that the aircraft is dedicated to the Skye-Glasgow service. If the 400 series aircraft were to be shared with other services, the lease rates would be spread over a greater number of services and the BCR for this route improved.

Carbon Cost

The carbon emissions from operating 12 x weekly return flights to Glasgow is estimated as 975 tonnes per annum based on a Twin Otter 300 series, and 925 tonnes for the 400 series with slightly more efficient engines.

This is offset by the reduction of around 8731 one-way car journeys (plus stimulated trips) and the consequential saving in emissions of around 565 tonnes, resulting in a net change in emissions of approximately 360 – 410 tonnes.

Based on the Department of Energy and Climate Change cost of carbon of £16 per tonne for 2013, this net change in emissions would be equivalent to between £425,000 and £489,000 additional NPV costs over a 30 year period. If this is included in the Cost Benefit analysis, for the Base Case the BCR would reduce from 0.95 to 0.92. However, the current carbon trading price is £3.50 (March 2013) and on this basis the net 30-year NPV cost would be between £93,000 to £106,000.

Recommended Next Steps

Commencing scheduled air services from Skye would provide significant benefits to the Island and adjacent region. In order to further explore the feasibility, we recommend the following next steps:

- A joint working group is formed comprising the Scottish Government, Transport Scotland and HIAL joining Highland Council, HITRANS and HIE, who have led this Initial Feasibility Study.
- The working group should progress detailed investigations starting with DfT liaison to discuss the feasibility of establishing a PSO service to Skye.
- When available, the outcome of the work by HIAL on GNSS approaches should be reviewed and implications for Broadford understood.
- Subject to the outcome of the above, development work on GNSS approach procedures should be undertaken to assess the benefits of providing an instrument approach.
- Discussions should be led by the working group, and involve airlines, fire authorities and CAA to gain greater certainty on the infrastructure and facilities needed to gain an operating licence for the airfield.
- Influenced by the outcome of these key actions the detailed business case should be advanced determining the specific capital and revenue costs, and the full economic and social growth and benefits that would be realised. The case should be advanced to a stage to enable decisions on investments to be made.

Recommendation

1. The Board is asked to note the findings of the Skye Air Services Feasibility Study as outlined in the Executive Summary and approve that the Partnership Director works in conjunction with The Highland Council and Highlands and Islands Enterprise to progress the actions identified in the 'Recommended Next Steps' as summarised in this report.

Risk	impact	Comment
RTS delivery	√	This work supports RTS Strategic priority S11a to reintroduce scheduled air services between Skye and the Central Belt
Policy	√	This work supports development of the Aviation policies set out in the RTS
Financial	-	There are no financial implications directly resulting from this report
Equality	-	

Report by:

Ranald Robertson / Neil MacRae

Designation:

Partnership Director / Partnership Manager

Date:

15th April 2013