

Adran yr Economi, Gwyddoniaeth a Thrafnidiaeth
Department for Economy, Science and Transport

Cyfarwyddwr Cyffredinol • Director General



Llywodraeth Cymru
Welsh Government

Darren Millar AM
Chair – Public Accounts Committee
National Assembly for Wales
Cardiff Bay
Cardiff
CF99 1NA

24 April 2015

Dear Mr Millar

I am writing regarding one of the actions captured at the 20 January PAC evidence session on the Intra Wales Air Service.

I have enclosed a copy of the ARUP report on the Intra Wales Air Service. This has also been published on the Welsh Government website at the following link:

<http://gov.wales/topics/transport/aviation-home/intrawalesair/intraair/?lang=en>

Please let me know if you require any further information.

Yours sincerely

James Price

Welsh Government

**Review of the Intra Wales Air
Service**

Main Review

2014 9297

Issue Rev H | 20 March 2015

This report takes into account the particular instructions and requirements of our client

It is not intended for and should not be relied upon by any third party and no responsibility is undertaken to any third party

Job number 237259

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Executive Summary

The Intra Wales Air Service provides twice daily weekday flights between north and south Wales. The Air Service has been designated by the UK Government as a PSO (Public Service Obligation) which allows the Welsh Government to provide financial support to sustain the service.

The current contract expires at the end of 2014. The Welsh Government commissioned Arup, assisted by York Aviation and Aviation Analysis, to undertake a review of the value of the service and potential for alternative options should the Welsh Government decide to continue supporting an Air Service beyond the period of the current contract. This review follows a preliminary report completed by Arup in March 2014 and addresses a number of the areas raised in the Public Accounts Committee Report on the Intra Wales Air Service.¹

Subsidised air services between Cardiff and Anglesey commenced in May 2007. The original service was operated by Highland Airways under a three year contract. That contract was terminated after Highland Airways ceased trading in 2010. Following the resulting two month service interruption, a four year contract was awarded to Manx/FLM in 2010 to operate the service with a three month break clause. The Air Service is currently operated via a contract between Welsh Government and two companies who are joint signatories; Citywing (formerly Manx2) undertake the ticketing and marketing, and Links Air, who were novated to the contract in 2012, operate the flights.

Several other parties are involved in the delivery of the Air Service including the Ministry of Defence, which owns RAF Valley (within which Anglesey Airport is located), Europa Belfinger (a contractor operating the Anglesey Airport terminal facilities), The Isle of Anglesey County Council and Cardiff Airport.

In the first year of the service operating (May 2007 – May 2008) over 14,000 passengers (one way trips) used the service which exceeded initial forecasts. A similar level of demand was achieved in the second year of operation, although demand had begun to fall during 2008 as the UK economy entered recession. Following the 2010 service interruption demand continued to decline until the start of 2011 when passenger numbers recovered slightly. Passenger numbers fell slightly in the first half of 2012 but have since remained relatively stable at around 9,000 passengers per year.

As part of this review existing passengers were surveyed and there was consultation with a range of aircraft carriers. The passenger surveys indicated that the majority of passengers (78%) were travelling on business and using the Air Service to make trips of a short duration to north and south Wales (as opposed to connecting to onward flights at Cardiff or travelling to further destinations outside the local areas). Around 60% of business travellers were employed in the public sector with the remaining 40% in the private sector. The primary reason passengers gave for using the Air Service is the time saving it offers in comparison to alternatives and in particular the ability to make a return trip in a day between north and south Wales. It is notable that a number of passengers suggested should the Air Service not be available they may not have made their

¹ National Assembly for Wales, Public Accounts Committee, *Intra Wales – Cardiff to Anglesey – Air Service – Interim Report*, July 2014.

journey. Whilst a number of suggestions on service alterations were received (in particular timing of journeys) there was generally a good degree of stated satisfaction from existing passengers.

The operator consultation undertaken indicated that the limit on aircraft size means that renewal of the contract would not be attractive to some operators who do not have access to smaller aircraft. Aircraft operators also made a number of suggestions in relation to the current contract conditions; these primarily related to conditions increasing the flexibility and scope to vary the service offered.

In considering the potential renewal of the contract a review has been undertaken of a range of airports against the likely market for travel (population and employment catchment), the journey time benefits and the fit with the EU regulations on PSO services (in particular the alternative public transport options between locations). The review identified Cardiff, Anglesey and Hawarden airports as having the greatest potential to form part of a future Intra Wales Air Service. From these three airports it is judged that Cardiff Airport is best suited to be retained as the base for the aircraft in light of the facilities available for use by the operator. Two daily service patterns have been assessed in terms of their potential patronage and economic performance:

Option 1: Cardiff – Anglesey – Cardiff – Anglesey – Cardiff

Option 2: Cardiff – Anglesey – Cardiff – Hawarden - Cardiff – Anglesey–Cardiff

Whilst Option 2 was assessed to have a higher overall patronage potential the associated increase in operational costs would be likely to require an increase in the Welsh Government subsidy to support the service. It is also recognised that an air service between Cardiff and Hawarden may be considered marginal against the PSO regulations given the existing rail alternatives. For these reasons it is considered that maintaining the existing service pattern, Option 1, offers the best prospects for a future Intra-Wales Air Service.

The economic benefits of the service are particularly sensitive to the value attributed to passengers' time. By applying alternative values of time (for aviation passengers) to patronage forecasts for Option 1, it is considered that for a four-year contract to 2018 the Benefit to Cost Ratio of the service could be up to 1.10. This Benefit to Cost Ratio does not include a number of Wider Economic Benefits associated with the air service such as greater levels of business interaction between north and south Wales, additional costs borne by business of alternative travel modes (such as accommodation and effects of travel fatigue), improved access to new business markets and retention of businesses in north west Wales.

In relation to the procurement of a future contract a number of recommendations are made. These are targeted at increasing the flexibility and attractiveness of the service (to both passengers and the contracted operator) and to driving growth in patronage, and therefore lower subsidy, through a more comprehensive marketing strategy and by establishing a linkage between patronage and level of subsidy.

Following the findings of the review it is also recommended that the Welsh Government pursue a number of complementary measures. These notably include the investigation of measures at Anglesey Airport that would enable the airport to be compliant with the National Aviation Security Programme (NASP) regulations and in doing so obviate the current limit on the size of passenger aircraft that can be accommodated at the airport.

1 Introduction

1.1 Purpose

The Intra Wales Air Service provides twice daily weekday flights between north and south Wales. The Air Service has been designated by the UK Government as a PSO (Public Service Obligation) which allows the Welsh Government to provide financial support to sustain the service.

The current contract expires at the end of 2014. The Welsh Government is undertaking a review of the value of the service and potential for alternative options should the Welsh Government decide to continue to support the service beyond the period of the current contract.

Arup, assisted by York Aviation and Aviation Analysis have been commissioned to build on the finding of the preliminary assessment and interim report completed by Arup which reviewed passenger and financial data for the service since 2007. This report outlines findings of the review including potential airports, service options and conditions of the current contract which may influence the procurement of any new service.

York Aviation have provided industry expertise, completed carrier interviews and prepared demand forecasts for the preferred service options.

Aviation Analysis have provided industry expertise, experience of the local aviation market, journey time and operating costs of the preferred service options. Martin Evans of Aviation Analysis has previously provided evidence to the Public Accounts Committee in relation to the Air Service.

1.2 Background

Subsidised air services between Cardiff and Anglesey commenced in May 2007, there are two return flights daily. The original service was operated by Highland Airways under a three year contract. The initial contract was terminated after Highland Airways ceased trading in 2010. In 2010, a four year contract was awarded to Manx/FLM to operate the service with a three month break clause. The Air Service is currently operated via a contract between Welsh Government and two companies who are joint signatories; Citywing (formerly Manx2) undertakes the ticketing and marketing, and Links Air who were novated to the contract in 2012, operates the flights.

Several other parties are involved in delivery of the Air Service including the Ministry of Defence which owns RAF Valley (within which Anglesey Airport is located), Europa Belfinger (a contractor operating the Anglesey Airport terminal facilities), The Isle of Anglesey County Council and Cardiff Airport.

2 PSO Regulations Review

2.1 EU Regulations

The concept of a Public Service Obligation (PSO) in relation to air services within Europe was established alongside the broader liberalisation of the air transport market within the EU, as set out in EU Regulation 2408/92. This followed the model of intervention through the Essential Air Services Programme developed in the USA following the deregulation of airlines from the late 1970s. The European provisions have now been updated and incorporated in a consolidated air transport regulation No. 1008/2008². The provisions governing PSOs are set out in Articles 16 and 17. There are also provisions covering the ‘ring-fencing’ of slots at congested airports within the Slot Allocation Regulations but these provisions are not relevant to the circumstances in Wales.

In the context of regulations which were aimed at freeing up access for all airlines to intra-Community air routes, a PSO was defined as “*any obligation imposed upon an air carrier to take, in respect of any route which it is licensed to operate by a Member State, all necessary measures to ensure the provision of a service satisfying fixed standards of continuity, regularity, capacity and pricing, which standards the air carrier would not assume if it were solely considering its commercial interest.*” Within the liberalised air transport market, Member States are no longer allowed to control capacity, frequency or fare levels on individual routes. Hence, in an open liberalised market, where airlines are free to choose which routes they operate and the conditions, there is a risk that some communities could be left without adequate air service connections. The PSO rules set out the strict circumstances under which Member States can intervene in the market.

A PSO can only be imposed “*in respect of scheduled air services between an airport in the Community and an airport serving a peripheral or development region in its territory or on a thin route to any airport on 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.*” Peripheral or development regions are not defined in the Regulation but are commonly taken to be those which are out-lying, located on islands or otherwise sparsely populated. Development regions are taken to be those in receipt of EU regional aid. A ‘thin route’ is not expressly defined in the Regulation. Further guidance on the interpretation of these definitions is given in Guidance on the Protection of Regional Air Access to London, published by the UK Department for Transport (DfT) in late 2013 (This is discussed further below).

² <http://eur-lex.europa.eu/legal-content/EN/ALL/?uri=CELEX:32008R1008>

A PSO may only be imposed on a route to the extent necessary having regard to:

- “(a) *the proportionality between the envisaged obligation and the economic development needs of the region concerned;*
- (b) *the possibility of having recourse to other modes of transport and the ability of such modes to meet the transport needs under consideration, in particular when existing rail services serve the envisaged route with a travel time of less than three hours and with sufficient frequencies, connections and suitable timings;*
- (c) *the air fares and conditions which can be quoted to users;*
- (d) *the combined effect of all air carriers operating or intending to operate on the route.”*

The designation of a route as a PSO route enables fixed standards of service to be imposed, so long as these are set in a transparent and non-discriminatory way. Additional guarantees relating to continuity of service may also be imposed under certain circumstances, particularly where other modes of transport cannot guarantee continuity of service with at least two frequencies a day.

There are detailed provisions for the advertisement of the proposed PSO and, if required, any subsequent tender for the operation of the PSO.

The designation of a route as being covered by a PSO does not automatically convey the need for subsidy to the service. Where a PSO has been designated, airlines may choose to operate the service in accordance with the requirement of the PSO and case law dictates that, once one or more carriers choose to provide services on a PSO route, they should be allowed to compete and the PSO should not unduly restrict the service they can provide. Given the small scale of the Intra Wales market, these provisions are unlikely to be relevant.

Where no carrier has commenced service on a route designated as covered by a PSO, then the operation of the route may be offered to a single carrier subject to a tender process, with selection of the carrier taking into account the adequacy of the service proposed, the prices and conditions which will be offered to users and the cost of compensation, if any, to the carrier for adhering to the requirements of the PSO. The compensation may cover the “*net costs incurred in discharging each public service obligation, taking account of revenue relating thereto kept by the carrier and a reasonable profit.*” The right to provide the service can be offered for a period of up to four years, with access to the route limited to the selected carrier for that period.

It is on this basis that the operation of the Intra Wales PSO has previously been tendered and operated since 2007.

2.2 UK Guidance

The DfT has issued no formal guidance on the operation of PSOs, although a number of PSOs have been operated within Scotland for some years, as well as the existing Intra Wales service. Recently, however, guidance was set out on how the PSO provisions would be interpreted in relation to securing regional access to London. Whilst these Guidelines are not strictly relevant to the Intra Wales PSO, they do provide useful interpretations of some of the provisions of Regulation

1008/2008 that are of relevance. In particular, the DfT provide more precise definitions in respect of those routes which are eligible to be considered for PSO designation:

- a) **Peripheral Region** – if the total journey time [to London Zone 1] by public surface transport from the main urban centre is more than 3 hours;
- b) **Development Region** – if an airport’s 1 hour catchment area contains areas in receipt of UK regional aid as set out on the Assisted Areas map;
- c) **Thin Route** – a thin route is defined as one carrying less than 50,000 passengers per annum.

In terms of other UK PSOs, it is reasonable to conclude that they should comply with the same conditions.

The DfT Guidance also sets out how the Department will assess the value for money of any proposal which requires compensatory funding, based on the standard transport appraisal techniques and cost benefit analysis.

2.3 Air Passenger Duty (APD)

Air Passenger Duty (APD) is an excise duty which is typically charged on the carriage of passengers flying from United Kingdom airports. Regardless of aircraft size this charge does not apply to any PSO route within the UK, as specified by HMRC in Notice 550³ (March 2014), Para 3.2.1.

This is an important clarification as historically APD has applied to all flights in excess of 10 tonne or 20 seat limits. Exceeding these limits would have historically resulted in higher fares and subsequent patronage suppression.

2.4 Rationale and Objectives

The Intra Wales Air Service must meet the key conditions set out in the Council Regulation on support for intra-Community air routes:

- The service must be to a ‘peripheral region’, or a ‘development region’, or on a ‘thin route to any regional airport’. One of these three requirements must be met;
- The service must be ‘vital to the economic development of the region’; and
- The imposition of a PSO must be necessary to ensure the ‘adequate’ provision of scheduled air services.

The rationale for the service is laid down in the PSO application made by the Welsh Government. The two primary objectives for the current service are stated as follows:

1. To encourage closer economic, social, and political cohesiveness between north and south Wales – north west Wales is a peripheral region of the UK and Europe and physically remote from population and administrative centres of Wales to the south. Moreover there is a perception of a north-south divide in

³http://customs.hmrc.gov.uk/channelsPortalWebApp/downloadFile?contentID=HMCE_CL_000505

Wales. Physical and psychological peripherality and isolation are reinforced by poor transport links between north and south. Reducing travel times between north and south Wales is intended to remove these barriers to economic, social and political integration in Wales.

2. To generate positive economic development outcomes for north west Wales – north west Wales forms part of the west Wales and the Valleys Convergence area and under-performs the rest of the economy of Wales in terms of GVA and prosperity. The economic performance of north west Wales is inextricably linked to its position as a peripheral and inaccessible area with poor communications with economic centres in Wales and the UK. The economic benefits of the north-south Air Service are intended to be two-fold: improved accessibility enabling the opening up of new markets and encouraging greater investment in north west Wales; and, supporting the tourism sector by improving access to the region.

2.5 Implications

The Regulations and Guidance have not altered since the last PSO contract was let. Airports situated in Wales comply, for the most part, with the Development Region criteria. And routes between these airports are all likely to be considered ‘thin routes’.

In terms of the consideration of alternative options, however, the main relevant criteria is that PSOs should not normally be imposed where alternative surface transport access, particularly by rail offers a journey time of less than three hours. The current route complies with this guidance as must any alternative or additional route which will prevent PSO services being considered between a number of airports; for example Cardiff to Welshpool.

The implication is therefore that the current route is still judged to comply with the regulations and any alternatives must also comply both in terms of economic grounds and in relation to journey time of greater than three hours by rail.

3 The Current (2007-2014) Air Service

3.1 PSO Contract Conditions

The current PSO contract includes a number of key conditions that define the service provision. These are considered to be as follows:

Service requirement

- A minimum of two daily return flights on each day from Monday to Friday. No services are required to operate on Saturday and Sunday.
- Total capacity per one-way flight of at least 18 passenger seats;
- Flights must be non-stop
- Rotations/Timings:
 - Timings must be scheduled within RAF Valley's opening hours of 08:00 to 18:00 on Monday to Thursday, 08:00 to 17:00 on Friday. Note that early closure on Friday restricts the ability to offer later services.
 - First departure from Cardiff no later than 08:00.
 - First departure from RAF Valley no later than 09:00.
 - Last departure from RAF Valley no earlier than 17:00 Monday to Thursday and no earlier than 16:00 on Friday.

Fares

- A maximum one-way ticket price of £59.45 (inclusive of passenger service charge and security charge). The maximum ticket price does not include any baggage charges.
- The maximum fare on the route may be increased once every year with the prior written consent of the Welsh Ministers in line with the United Kingdom's Retail Price Index (all items) or any successor index to this.
- No changes may be made to the maximum fare levels without the prior written consent of the Welsh Ministers.
- The new maximum fares must be notified to the Civil Aviation Authority and to the European Commission, which may publish them in the Official Journal of the European Union.

Miscellaneous

- Ability to start operations by a specified start date as communicated by the Welsh Ministers
- The flight crew used in the operation of the Designated Service must be fully trained and licensed on the type of aircraft employed.
- The aircraft type must be compatible with the level of fire cover provided at RAF Valley.
- The operator must comply with the Department for Transport's Access to Air Travel for Disabled Persons and Persons with Reduced Mobility – Code of

Practice, save that, in respect of the carriage of disabled persons and persons with reduced mobility on the aircraft, such compliance will, where applicable, be subject to the Service Provider being provided with appropriate handling equipment by the relevant third parties.

- Check-in must remain open until at least 30 minutes before scheduled departure times.
- Both (i) sales and promotional literature and (ii) a website; must be provided in the medium of Welsh as a mandatory requirement.

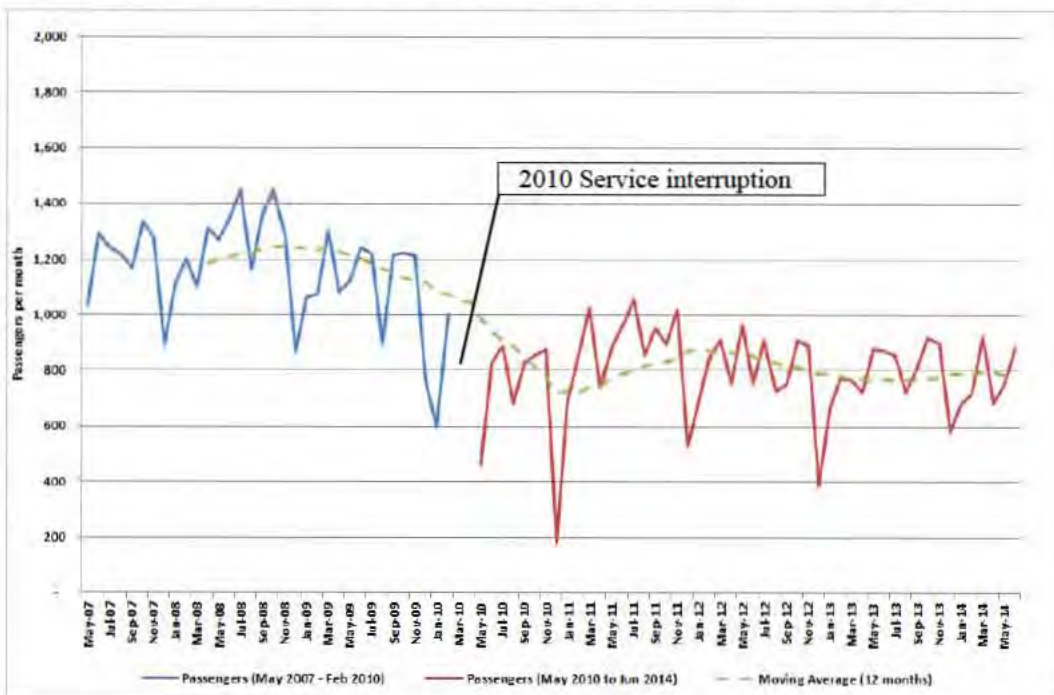
3.2 The Market for Travel

3.2.1 Historic Demand for the Air Service

Figures 1 and 2 shows the trend in passenger numbers using the Intra Wales Air Service.

In the first year of the service operating (May 2007 – May 2008) over 14,000 passengers (one way trips) used the service which exceeded initial forecasts⁴. A similar level of demand was achieved in the second year of operation, although demand had begun to fall during 2008 as the UK economy entered recession. The service was interrupted for a period of two months in the spring of 2010. Demand continued to decline until the start of 2011 when passenger numbers recovered slightly. Passenger numbers fell slightly in the first half of 2012 but have remained relatively stable since at around 9,000 passengers per year.

Figure 1 – Intra Wales Air Service Passenger Demand (Includes 'no-shows')



⁴ The service was forecast to attract 14,000 passengers in the first year, rising to 15,000 in year 2 and 16,600 thereafter.

Figure 2 – Change in patronage in comparison to same month in previous year

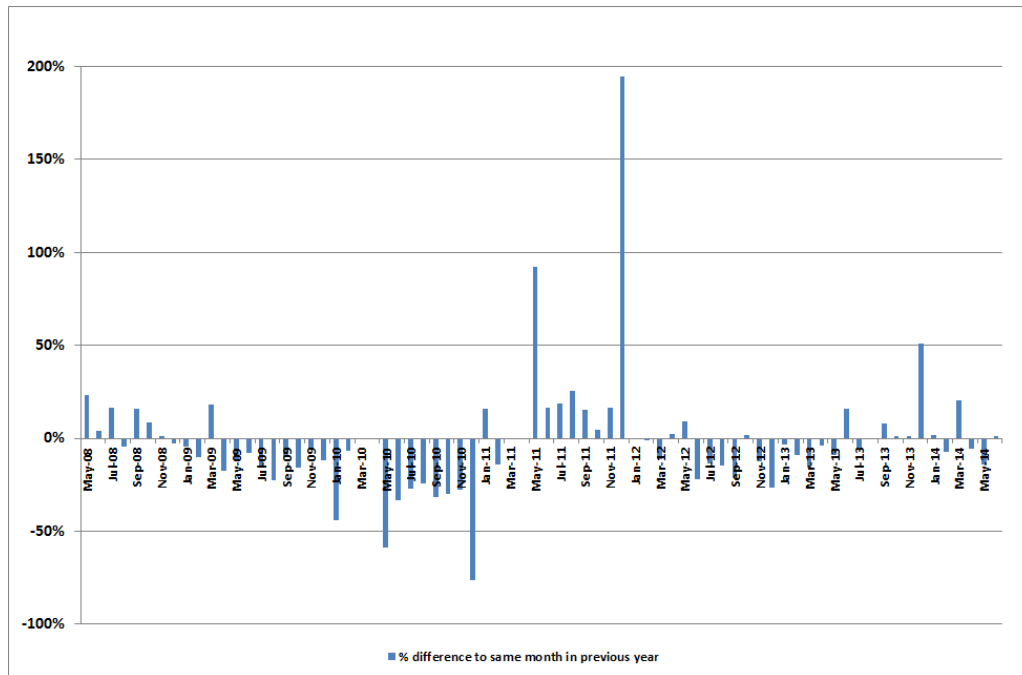
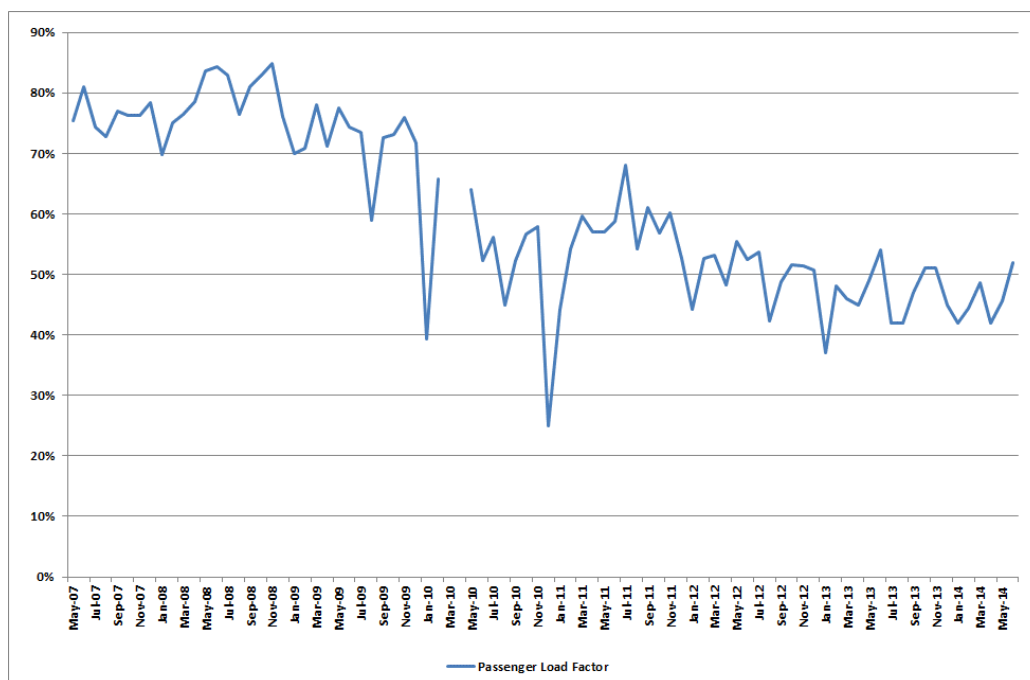


Figure 3 shows the load factors (passengers per seat) achieved by the service.

Falling demand has been reflected in the load factors achieved since 2007 (capacity has remained constant since 2007). In the first year, load factors of over 80% were achieved but in recent years average load factors in recent years have oscillated around 50% of capacity. It should be noted however that average load factors mask a significant degree of variation between busy and quiet periods and services.

Figure 3 – Intra Wales Air Service Load Factors

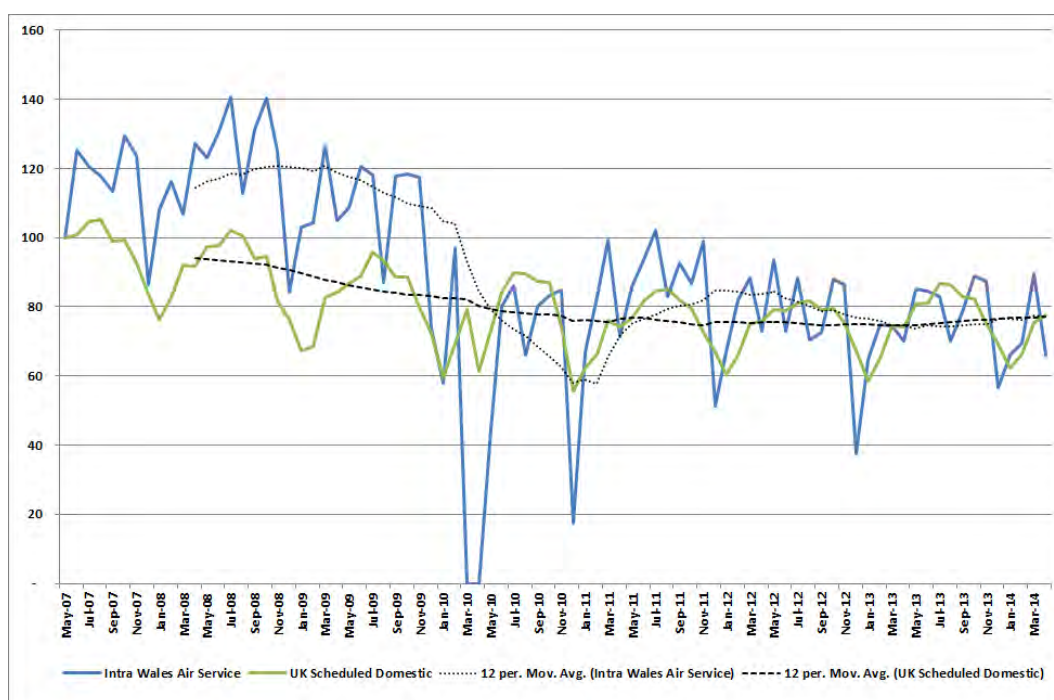


Changing demand for the Intra Wales Air Service needs to be placed into context by comparing against the trend for domestic air travel in the UK as a whole.

Figure 4 suggests that the reduction in passenger numbers for the Intra Wales Air Service is, in part, reflective of a wider downward trend in domestic air travel in the UK. Demand for the Air Service began to fall at around the same time as the sector as a whole. Overall, demand for the Air Service fell by around 35% between 2008 and 2013. Over the same period, demand for domestic air travel in the UK fell by 16%. This disparity suggesting local factors are also at play; two potential local influences have been identified. Firstly the larger proportionate reduction in passenger numbers at Cardiff Airport during this period than the UK as a whole. Secondly that following the 2010 service interruption a £20 Cardiff Airport passenger charge was introduced (the PSO service did not previously pay a charge) this increased operational costs for the operator and is likely to have influenced fare increases and may have had an effect on price sensitive customers.

As is the case for the Air Service, demand for domestic air travel has stabilised since 2011.

Figure 4 - Comparison with UK Domestic Scheduled Passenger Traffic (Index: May 2007 = 100)



In conclusion, the following points summarise the trend in passenger numbers and the main factors that have influenced demand since 2007/8:

- Overall, controlling for seasonality, demand appears to have fallen by around 25% from the peak.
- The economic downturn has had a negative effect on demand for domestic air travel between 2008 and 2011. This is likely to be the main factor explaining the fall in demand of around 10% between the commencement of services and the beginning of 2010. This also coincided with the commencement of early morning premier rail services between Holyhead and Cardiff which offers an

improved journey time between these locations and may have abstracted some patronage.

- It is also important to note that Cardiff Airport experienced a larger reduction in passenger and air traffic movements during the economic downturn than other UK airports. This has reduced the market for connecting flights to other destinations.
- The interruption to services experienced in 2010 resulted in a step change reduction in demand for the services. Demand for the service for the 12 months after the interruption was around 30% lower than before the interruption.
- Although there was a short-lived recovery in demand during 2011 it is likely that the interruption has had a lasting impact on demand. Many passengers would have switched to other modes of travel during this period and it has proved challenging to attract passengers back to the service.
- Market conditions continued to be challenging during 2012 and demand fell back again during this year. Scheduled services from Cardiff Airport fell at this time including the loss of all BMIbaby services from the airport, further reducing onward connections.
- Demand has stabilised since 2012 with similar passenger numbers in 2013 and 2014. Some months during winter and spring 2013/14 are higher than for the same period in recent years and the operator considers this an indication of the beginnings of a recovery however it is hard to discern a consistent pattern at present.

3.2.2 Immediate Prospects for Passenger Demand

In the short term, to the end of current contract, it would be reasonable to expect levels of demand to be similar or slightly higher to those experienced in 2013. Increased demand for the service in recent months, general economic conditions would suggest there are reasonable prospects for a modest increase in demand during 2014.

In the longer term, there is also reason to be optimistic about increased demand for the service. Department for Transport forecasts show increasing demand for domestic air travel in the UK. Crucial to the Air Service also achieving growth will be the development of Cardiff Airport and the expansion of potential connecting routes to popular business destinations. Since the airport was purchased by the Welsh Government there has been a consistent increase in passenger numbers at the airport; for the one year period to March 2014 passenger numbers have increased by 9% in comparison to the previous year.

3.3 The Role of the Air Service

In reviewing the Air Service it is important to have an understanding of the role it fulfils, the benefits it offers to passengers in comparison to other modes and, given the rationale for the PSO, the value of the service to business travellers.

A comparison of travel times highlights that the Air Service does provide a distinctive offer to travellers. Crucially, the Air Service provides return flights in the morning and afternoon and offers the most feasible transport option for business travellers seeking to return on the same day. The flight time of one hour compares favourably with a travel time of up to five hours by rail or car.

A direct comparison of the Air Service and other modes needs to consider the 'door to door' travel time, allowing for travel to the airport, check in and onward travel time. Under relatively conservative assumptions, a single trip between Holyhead and Cardiff is around two and a half hours door to door. This saves around two hours in comparison with a rail journey. Travel time estimates for car travel between north and south Wales suggest that journey times by car are likely to be slightly longer than by rail.

The financial costs of the Air Service are not greatly in excess of the cost of other modes. A rail ticket between Holyhead and Cardiff costs around £38 at peak times. This compares with the current minimum and maximum one way air fares of £20 and £59 respectively, although it should be noted that access and onward travel will add to the cost of a trip using the Air Service.

The survey undertaken during July 2014 in relation to this review, see section 4, suggests that around three quarters of passengers are business travellers. This is supported by the views of the current operator. This suggests that the service is fulfilling its role by providing improved connections for businesses. The operator has also stressed the importance of passengers using the service to catch connecting flights from Cardiff Airport, although as noted this market has been eroded in recent years.

Travel by car or rail are the primary alternatives to the Air Service. The Arriva Trains Wales Premier Service which offers fast early morning services for passengers travelling from north Wales. Like the Air Service, this is perceived as a premium service targeted at business travellers. However, the travel time for this service is still considerably higher than for the Air Service and only serves passengers travelling from north Wales in the morning and returning in the afternoon whilst only standard services serve demand in the opposite direction. From 2015 rail journey times between north and south Wales are anticipated to be improved by up to 15 minutes as a result of Welsh Government investment announced in October 2013.

Car journeys between north and south Wales are lengthy and despite improvements to strategic roads such as the A470 the journey times remain an issue. A typical journey between Bangor and Cardiff would be expected to take over four hours at a one-way fuel cost of around £22.⁵

Tables 1-3 compare travel options between north and south Wales.

⁵ Based on a 285km Bangor to Cardiff journey using unleaded petrol at £1.30/L and a fuel efficiency of 17.2km/L. Running and depreciation costs excluded.

Table 3.1 - Flight Times and Comparison with Rail/Car Journeys (scheduled times)

| | | Depart | Arrive | Duration |
|-------------------------------|-----------------------------|--------|--------|--------------|
| Air Service | Cardiff to Anglesey | 07.40 | 8.40 | 1 hr 0 mins |
| | Anglesey to Cardiff | 09.00 | 10.00 | 1 hr 0 mins |
| | Cardiff to Anglesey | 16.15 | 17.20 | 1 hr 5 mins |
| | Anglesey to Cardiff | 17.40 | 18.45 | 1 hr 5 mins |
| Selected Direct Rail Services | Cardiff Central to Holyhead | 07.21 | 12.23 | 5 hr 2 mins |
| | Holyhead to Cardiff Central | 05.33 | 09.58 | 4 hr 25 mins |
| | Cardiff Central to Holyhead | 17.16 | 21.45 | 4 hr 29 mins |
| | Holyhead to Cardiff Central | 16.50 | 21.42 | 4 hr 52 mins |
| Car journeys | Cardiff to Holyhead | N/a | N/a | 4 hr 33 min |
| | Cardiff to Bangor | N/a | N/a | 4 hr 18 min |
| | Newport to Bangor | N/a | N/a | 4 hr 6 min |
| | Cardiff to Llandudno | N/a | N/a | 4 hr 9 min |

Table 3.2 - Selected Intra Wales Air Service Total Travel Time Estimates

| | 'In-vehicle' (minutes) | Other time (minutes) | Total Travel Time (hours) |
|---------------------|---------------------------|-------------------------|---------------------------|
| Cardiff – Bangor | 60 | 113 | 2hr 53mins |
| Newport – Bangor | 60 | 127 | 3hr 07mins |
| Cardiff – Holyhead | 60 | 96 | 2hr 36mins |
| Cardiff - Llandudno | 60 | 134 | 3hr 14mins |

Table 3.3 – Estimated 'Door to Door' Travel Time Savings (Single Direction)

| | Air Service vs Rail | Air Service vs Car |
|---------------------|---------------------|--------------------|
| Cardiff – Bangor | 1hr 15mins | 1hr 25mins |
| Newport – Bangor | 0hr 46 mins | 0hr 59 mins |
| Cardiff – Holyhead | 2hr 10 mins | 1hr 57mins |
| Cardiff – Llandudno | 1hr 31mins | 0hr 55 mins |

From this comparison it is apparent that the Air Service has the potential to save passengers significant time in comparison to other transport options but that this benefit erodes as the final destination of passengers becomes more remote from the airports served. It is therefore considered likely that the patronage of the service will be strongly related to the locations served and their catchment in terms of population and employment within easy reach of the airports as well as the onward transport links available at the airports.

3.3.1 Benchmarking

Public Service Obligations

The Welsh Government has predicted an average subsidy of £85 per passenger for a renewed Intra Wales Air Service. Data on comparator PSO air services is sporadic and in the absence of further research, it has only been possible to identify a limited number of comparators. However, it is instructive that the average subsidy per passenger for services in the Outer Hebrides (between Stornoway and Benbecula, and Barra and Benbecula) are of a broadly similar magnitude to the earlier years of the Intra Wales Air Service at £46 per passenger (2011/12) and £83 per passenger (2011/12) respectively.

A review of value for money in Government expenditure on regional airports undertaken by the Irish Department for Transport provides some information on the level of subsidy of PSO services in Ireland. Overall, in 2009 the Irish Government provided €14.7m (£13.1m) of subsidy across a number of services (13 'rotations' in total) operating between Dublin and Donegal, Sligo, Galway, Knock and Kerry airports. The average subsidy per passenger in 2009 was €90 (£80) with the highest cost service requiring a subsidy of €170 (£151) per passenger. Ireland also experienced an increase in the cost of PSO support with average subsidy levels rising by 26% between 2006 and 2009.

Table 3.4 – Benchmark Subsidy Levels (Cost Per Passenger)

| Route | Subsidy Cost Per Passenger |
|-----------------------|----------------------------|
| Stornoway – Benbecula | £46 (2011/12) |
| Barra – Benbecula | £83 (2011/12) |
| Dublin – Donegal | €84 - £75 (2009) |
| Sligo – Dublin | €90 - £80 (2009) |
| Knock – Dublin | €170 - £151 (2009) |
| Galway – Dublin | €68 - £61 (2009) |
| Kerry – Dublin | €17 - £15 (2009) |
| Derry – Dublin | €111 - £90 (2009) |

European Examples

Comparisons can also be made with other European PSO services, such as those in France and Norway where the rationale for imposing PSOs is to sustain air services to remote regions for economic development purposes.

Norway – Wideroe and Economies of Scale

Wideroe is the largest regional airline in Scandinavia, carrying 2.8 million passengers annually across 47 domestic and international destinations. 40% of these routes are operated under PSO and Norway has the most PSO services in Europe. Wideroe operates a fleet of Bombardier Dash-8 aircraft with between 39 and 78 seats.

The company holds most of the public service obligation contracts with the Ministry of Transport and Communications, with 25 services running from April 2009 to March 2012. The Ministry is able to offer service packages to Wideroe, allowing the company to benefit from economies of scale.

These services connect small communities and towns to regional economic centres and primary airports. The air services employ 1,500 staff and 9 million passengers use domestic air services in Norway annually, with many of these relying on ‘lifeline’ air services from remote parts of the country.

France – Paris, the economic centre⁶

France has made extensive use of PSOs including in cases where routes have not become commercially viable. For example, the Paris-Ajaccio service handled over 380,000 passengers in 2000.

The impetus in France for operating PSO services has come mainly from regional authorities and local chambers of commerce who are of the view that regular, convenient and affordable air service links to Paris are a social and economic imperative.

This example demonstrates France’s willingness to connect the more remote parts of the country with its capital for economic reasons.

Most PSO tenders require operators to set air fares within a limit specified by the administering authority and if no carrier is willing to offer a subsidy-free operation, a second tender is issued which invites carrier to bid on the basis of receiving a subsidy. To date however, there has been comparatively little research

⁶ *Aviation as Public Transport: Which Regions are Underserved?*

http://www.google.co.uk/url?sa=t&rct=j&q=&esrc=s&frm=1&source=web&cd=2&ved=0CCoQFjAB&url=http%3A%2F%2Fabstracts.aetransport.org%2Fpaper%2Fdownload%2Fid%2F2330&ei=z6m2U8vuF8fZ0QXV_YDIBg&usg=AFQjCNHddbNwDjgBe_v6xovzN6qzQfScvA&sig2=khnDUkLLX8WahkyeKRcuOA

published on the subject of the PSO system or on broader social air service subsidy policy issues⁷.

Table 3.5 provides the number of PSO routes in selected countries in Europe, and also provides the percentage of the countries' domestic seats operating within PSO services.

Table 3.5 - Number of PSO routes in European countries

| Country | Number of PSO routes | % of domestic seats which are PSO services | Subsidy per passenger (2011) |
|----------|----------------------|--|------------------------------|
| Norway | 61 | 10 | 60 |
| France | 41 | 10 | >20 |
| Portugal | 10-12 | 40 | >20 |
| Scotland | 10-12 | - | 60 |

Rail Subsidy

Caution should also be applied when comparing the cost of the Air Service with other subsidised modes because of the differing functions that these modes provide. As an indication of the relative cost of the Air Service subsidy, the overall subsidy for the Wales and Borders Franchise is around £0.19 per passenger km compared to £0.71 per km for the Air Service (2013/14). Therefore for a one-way Cardiff – Bangor journey the total subsidy value is in the order of £65 per passenger⁸.

⁷ Williams and Pagliari, 2004, *A comparative analysis of the application and use of public service obligations in air transport within the EU*

⁸ Assumption of 335km journey via Chester.

3.4 Current Air Service SWOT Analysis

Based on the assessment of the existing service a Strengths, Weaknesses, Opportunities and Threats (SWOT) analysis has been completed to summarise the current Air Service.

| STRENGTHS | WEAKNESSES |
|--|--|
| <p>Fastest mode of transport between north west and south east Wales</p> <p>User surveys indicate that passengers consider the service good value for money</p> <p>Cardiff and Anglesey Airports are both small and easy to use for business travellers</p> <p>Cardiff Airport is well connected to Cardiff city centre by upgraded public transport service T9</p> <p>The service enables a full working day in north Wales</p> <p>The service is perceived as comfortable, convenient and straightforward by passengers</p> <p>Passengers consider the Air Service to be less tiring than alternative forms of transport</p> | <p>Travel time benefits eroded by need to travel to final destination</p> <p>Not attractive for travel to north east Wales</p> <p>Scheduled flight times limit duration of single day trips in Cardiff city centre for passengers from north Wales</p> <p>User surveys indicate passengers consider airport facilities as basic</p> <p>Diversions and delays are not uncommon</p> <p>No weekend or bank holiday flights, this restricts tourism travel</p> <p>Single daily return flights limit travel flexibility</p> <p>Poor public transport connectivity at Anglesey Airport</p> |
| OPPORTUNITIES | THREATS |
| <p>Upcoming tender to achieve better value for money through use of review findings</p> <p>Alterations to service timing e.g. to enable a full working day in Cardiff</p> <p>Generating tourism travel</p> <p>Serve new markets in Wales</p> <p>Access connecting flights to other parts of UK and Europe</p> <p>Knowledge and skills exchange between north and south Wales, allowing increased public and private partnerships and sector growth</p> <p>Adjustments to service to minimise travel times, such as quicker check-ins and reduced disruption</p> <p>Improved service reliability</p> | <p>High subsidy requirement becomes unsustainable</p> <p>Competing transport modes</p> <p>Airline continuity</p> <p>Changes in airport operational conditions</p> <p>Air service regulation changes</p> <p>Airlines unable to offer aircraft of appropriate capacity to comply with aircraft size restrictions at tendered airports</p> <p>Lack of tender interest at renewal</p> <p>Higher tender cost at renewal</p> |

4 User Profile and Needs

4.1 User Survey

Between 7 and 18 July 2014 a survey of Air Service passengers was completed in relation to this review. The survey was aimed at better understanding the use of the Air Service, the profile of passengers making use of it, their journeys and the reasons why passengers chose to use the Air Service as opposed to competing transport options.

In total 170 surveys were completed although partial information meant that a number of the survey forms were not viable for inclusion and so the data presented here relates to a maximum of 164 surveys of which 88 were in the Anglesey to Cardiff direction and 76 in the Cardiff to Anglesey direction. Where individual questions were not answered, these surveys have been omitted from the data presented. The Survey form, which was available in both English and Welsh, is included as Appendix A.

In addition to the information presented in this section, the survey data has also been used to inform the options analysis and value for money of potential options elsewhere in this review.

4.1.1 Journeys Using the Air Service

The survey asked passengers to confirm the origin and final destination of their journey. These travel patterns have been used to inform the financial assessment in Section 6. Figures 4.1 and 4.2 (see figures section at end of report) present the information for north and south Wales respectively.

Origins and destinations in north Wales are distributed relatively evenly, but with the majority of origins/destinations either to Anglesey itself or along the Menai Strait, including Bangor and Caernarfon. At the extremities of its catchment, the survey indicates that the Air Service is being used by passengers in Pwllheli, northern areas of Snowdonia and Prestatyn.

In south Wales passenger destinations, and to a lesser extent origins are more concentrated around Cardiff, and in particular the city centre, which emphasises the importance of good connections between the airport and the city centre. At the extremities of catchment the Air Service is being used by passengers in Llanelli, Ammanford, Merthyr Tydfil and Caldicot.

Overall it is apparent that the service is a viable option for a range of origins and destinations up to 35 kilometres away from the airports but that there is a focus of these journeys around key centres of population and employment, particularly in Cardiff.

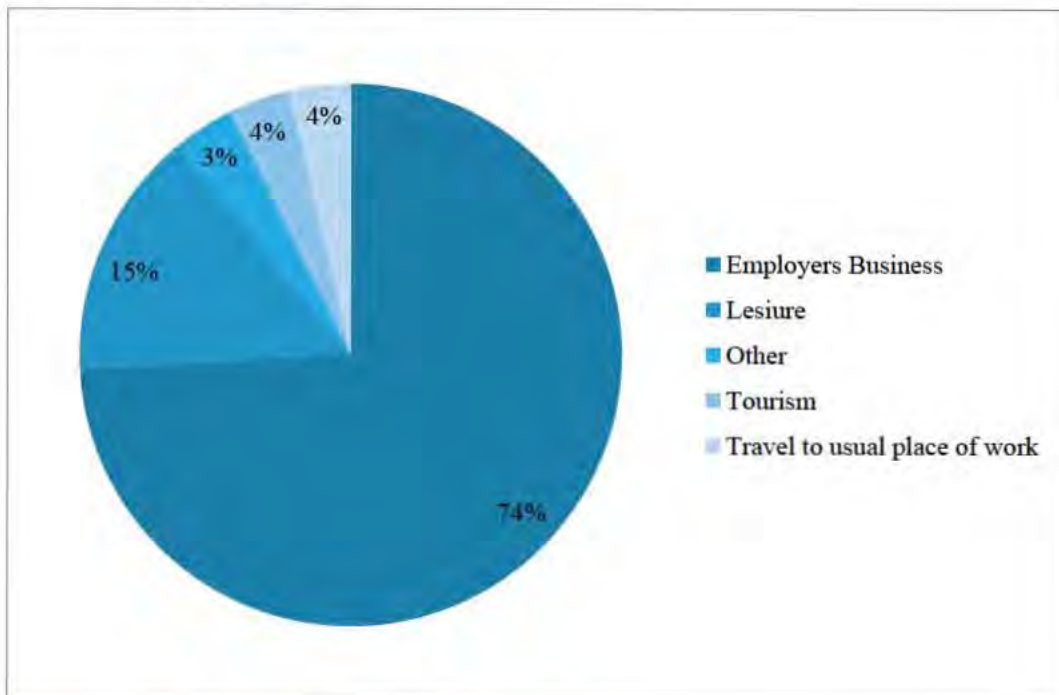
4.1.2 Purpose of Travel

The surveys indicate that the majority of passengers, 78%, were using the service in relation to their employment; of these 74% were on employers' business typically meetings or business trips whilst 4% stated that their journey was to a normal place of work. The responses of this latter group are likely to reflect employees who are co-located as opposed to commuting journeys ie. their normal

working week is divided between two places, these responses are shown below in Figure 4.3.

Of the remaining journeys the largest portion 14%, were leisure trips – such as visits to family and friends. Tourism and ‘other’ trips account for a small proportion of demand at 4% each.

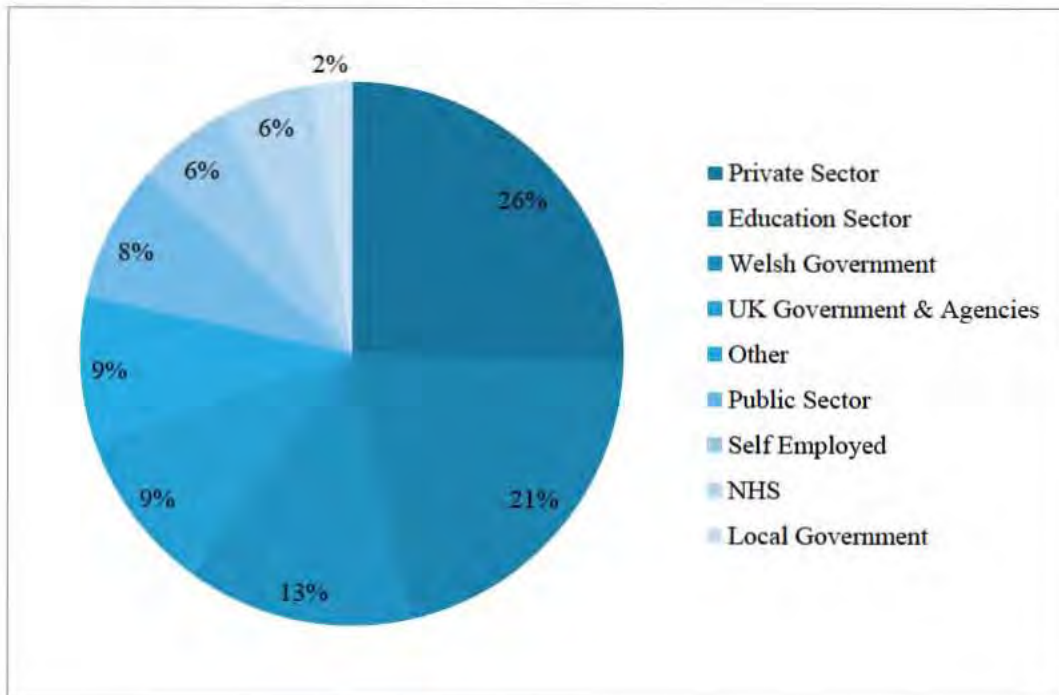
Figure 4.3 Purpose of travel



4.1.3 Nature of Business Travellers

Business passengers (those on employers’ business and respondents travelling to a usual place of work) were asked to categorise the nature of their employer. The responses in Figure 4.4 indicates that two largest employment sectors using the Air Service during the survey period were the private sector and the education sector who together made up nearly half of all users. The Welsh Government accounted for 15% of demand. Other employment sectors represent roughly 10% or less of business travellers. Overall, roughly 60% of passengers were employed in the public sector and 40% in the private sector. It must be noted however that this is a rough estimation as passengers selecting the ‘other’ option could be employed in the public or private sector.

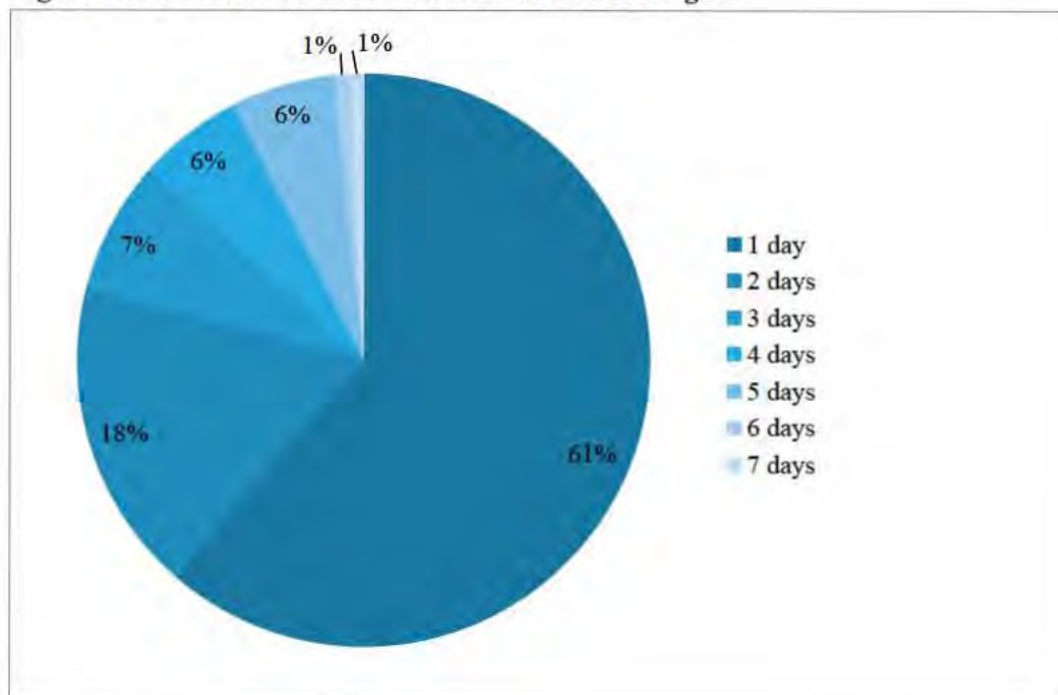
Figure 4.4: Nature of business travellers



4.1.4 Duration of Stay

The majority of passengers using the Air Service (61%) were making a return journey on the same day; this supports the perception that the service plays an important role for business travellers looking to return from north or south Wales on the same day. Figure 4.5 below shows the breakdown of response with regards to duration between flights.

Figure 4.5: Duration between outbound and return flights



4.2 Frequency of Travel

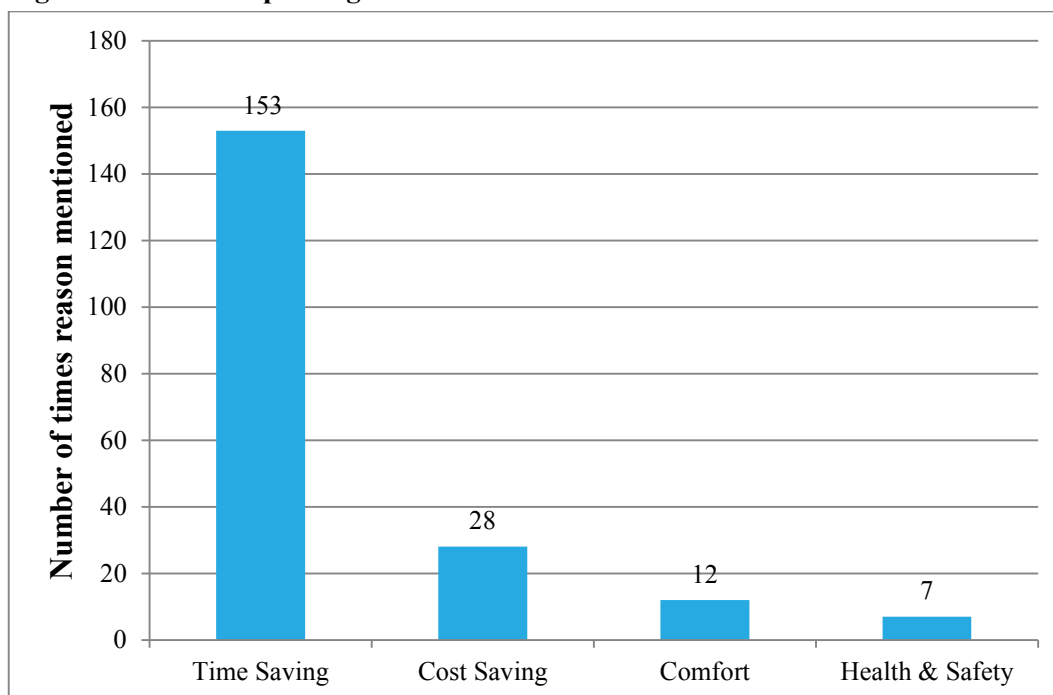
No passengers stated that they used the service several times a week but 13% responded that they used the service on a weekly basis and 25% on a monthly basis.

However the majority of passengers use the service either relatively infrequently or reported that it was their first trip on the Air Service. There was no particular relationship in the survey results between frequency of travel and journey purpose. It is however notable that the service continues to attract new passengers.

4.3 Reason for use of the Air Service and alternatives

Passengers were also asked to state the reasons they had chosen to use the Air Service. In this case, many selected more than one reason, but it is clear from the results that the primary reason for using the Air Service is the time-saving it offers in comparison with other modes of travel. Figure 4.6 below shows the total number of responses.

Figure 4.6: Reasons passengers use the Air Service



In a related question users were asked how they would have made the journey if the Air Service was not available. Whilst the primary responses to this question are unsurprisingly either⁹ by rail 35% or driving 53% it is notable that 11% either said that they would not have made the journey or expressed doubt that they would have made the journey. Of this 11% three-quarters were business travellers indicating the value of the Air Service for facilitating business interaction which would otherwise not occur. Of those who would have travelled using alternative means, several responses also mentioned the time and cost penalties that would arise through these alternatives, such as having to take time off work or the trip requiring an overnight stay.

⁹ Those who answered rail or car have been apportioned evenly.

4.4 User Satisfaction

Within the survey, respondents were also invited to provide general comments and feedback on the service, its adequacy and potential for improvements.

When asked if the service met all current needs of passengers, 62 respondents answered 'Yes'. A number of passengers also expressed their thoughts on how important the service was for Wales and for connecting north and south Wales for business and social purposes

A number of responses also proposed improvements/alterations to the service. General themes which were evident across these included:

- Earlier morning flights from Anglesey and later evening flights back to Anglesey to provide passengers with a longer working day in Cardiff;
- More frequent flights throughout the day; and
- Weekend flights.

Whilst these were the most frequent responses a minority of passengers also made suggestions including lower fares and on-board food and drink services.

4.5 Organisations Using the Air Service

Using a record of companies who had previously used the Air Service a series of telephone interviews were conducted, the following open questions were asked of companies using the service:

- Why do you use the service?
- What advantages does the service bring to your company, and perhaps give you over your competitors?
- What improvements would you like to see to the current service?

Whilst not all those contacted were willing or able to comment a number of the responses give an interesting insight into the value of the service. The feedback received demonstrated a number of consistent themes, including the service's convenience in comparison to alternatives of car or rail travel. Nearly all the companies interviewed reacted positively to the questions; respondents enjoyed using the service and indicated that it serves a much-needed purpose for business users. Three case studies are presented to portray general messages about the service, whilst also providing specifics relevant to those companies.

Barn Media

Barn Media is an independent video production company based in Wales, launched by former ITV producers in 2010. The company specialises in programme and documentary making and its clients include BBC, ITV, Sky and IMG.

The company uses the service because they often film in north Wales' picturesque environments and it is convenient for transporting crew and equipment. The main advantage the service gives Barn Media is time for the company to get to and from north Wales in one day, and get a full work-day's filming done. They stated that no improvements could be made to improve their experience of the service and that it serves a purpose for people travelling to north Wales and back.

WJEC Education

WJEC is the largest provider of qualifications for schools, sixth form and further education colleges across Wales, providing valued qualifications to suit a range of abilities.

WJEC is dedicated to supporting teachers in delivering its qualifications through extensive Continual Professional Development programmes. These are hosted at a number of locations across the length and breadth of Wales.

WJEC staff often travel around Wales to attend events and training courses. The Air Service allows convenient access between north and south Wales and WJEC have found the service is quicker and sometimes cheaper than travelling by train.

High Performance Computing Wales

High Performance Computing (HPC) Wales is Wales' national supercomputing service provider. HPC Wales is the UK's largest distributed general purpose supercomputing network, HPC Wales provides businesses and researchers with local access to world-class technology, as well as the support and training necessary to fully exploit it. The venture is a unique collaboration between Welsh Universities and Welsh Government.

HPC Wales is a pan-Wales project with sites across the country. With a head office in Bangor, north Wales and a large supercomputing facility and customer base in Cardiff, south Wales, the venture is dependent on the Air Service between Cardiff and Anglesey. The service helps reduce travel time and ensures meetings can be attended at short notice. Whilst HPC Wales uses the service frequently, they have highlighted that the return flights to Anglesey leave too early, limiting their ability to have a full working day in Cardiff. They have also experienced diversions and delays, particularly in the winter, which further impacts on a working day in the capital.

4.6 Comparison with Previous Survey Data

Prior to the survey completed in relation to this review, a survey was conducted at the start of 2014 by Citywing. This survey did not include the key origin-destination data but did cover a variety of more customer service focussed questions some of which are directly comparable to those asked here.

The Citywing survey indicated that 56% of passengers were travelling for business with the remaining 44% made up of leisure and visits to family and friends.

In relation to frequency of travel, the findings were comparable with 83% of passengers using the service once a month or less.

When asked about potential improvements to the service, the majority of passengers expressed satisfaction with service with approximately half of respondents saying no improvements were necessary on the flight or the respective airports. Of those passengers who did raise suggestions the most common were in relation to food and drink facilities whilst some passengers expressed concern about the long walk from the terminal to the plane, as well as high car parking charges at both Cardiff and Anglesey airports.

Two clear messages apparent from the Citywing survey and consistent with the survey for this review were the demand for weekend flying and more flexibility on weekday flights, so as to ensure longer working and leisure days when passengers arrive at both Anglesey and Cardiff airport.

4.7 Wider Economic Benefits

As noted, it is important to consider the indirect effects of the service on the economy alongside the more easily quantifiable travel time and cost savings. Whilst there is no up to date information on the economic impact of the service surveys of passengers undertaken in 2008 and 2014 asked business passengers to describe the benefits of the service to their business. The following comments from passengers illustrate the nature of such wider economic benefits resulting from the service:

- They now undertake work in one day that previously would have taken two days with an overnight stay;
- The Air Service not only gave them more time but also more productive time;
- One passenger calculated giving his employer an extra 12 hours of working time per week;
- Driving would leave them tired for the rest of the week;
- The reduced travel time saved their company on money and resources;
- They now attended more meetings in Cardiff which helped raise the profile of north west Wales bringing significant economic benefit to the region;
- The Air Service has opened new business opportunities for their organisation and if business continues to grow they would consider a north Wales office.'

The inference from business passenger responses is that the primary benefit for businesses is that reduction in lost productive time due to travel. The most frequent responses relating to issues of time and convenience. However, there is

evidence in the above responses of business passengers to suggest that economic impacts are wider than the basic time saving and that the improvement in accessibility may actually affect business decisions with respect to markets and investment. This may in turn lead to net economic benefits for Wales. Although no specific examples of increased trade or employment were identified one business passenger based in north Wales suggested that the Air Service had enabled their business to attend more meetings in south Wales. Another passenger based in south Wales reported that the Air Service was encouraging the business to consider opening a north Wales office in the future.

4.8 Summary

The survey completed emphasises that the current Air Service is predominantly used by business travellers from a range of employment sectors and that the majority of these users are making trips of short duration. The main reason passenger's use the Air Service as opposed to alternatives is the time-saving benefits it provides. The majority of users are satisfied with the provision of the Air Service with flight times and frequency being the most cited options for improvement. More detailed conversations with companies using the Air Service indicate that businesses are able to work in both north and south Wales and that some of these trips may not occur without the facility of the Air Service.

5 Operator Consultation

5.1 Identified Operators

A number of carriers, listed in Table 5.1, have been identified and interviewed in order to provide a broad range of operators specialising in operating domestic routes or small commercial aircraft in the UK of the nature currently used to operate the Intra Wales Air Service. The sample was not intended to be a comprehensive list of airlines or aircraft owners nor was the process intended to act as a pre-cursor to the procurement exercise.

We have included a number of carriers (marked *) who do not currently operate scheduled (or even regular charter) services, such as Cardiff Aviation and British International Helicopters (Veritair). In order to operate scheduled services they are likely to have to seek an Air Operators Certificate (AOC) to be permitted to take part in the tendering process under EU guidelines as any PSO can only be granted to an AOC holder.

Obtaining an AOC may take longer than the proposed tender timescales, with no guarantee of success in being awarded an AOC. Furthermore, these operators without an AOC are unlikely to have any established sales channels or market presence, all of which would need to be factored into their tender submission, both in relation to time to set these up, achievability of passenger numbers and potentially on cost. If the operator has no need for sales channels or marketing efforts other than for the PSO, it may be expected that they would seek to cover the full cost of these in the submission. In combination these factors mean that there are likely to be significantly higher risks associated with selection of a start-up airline.

Of the operators identified several have declined, or were unavailable, to complete a telephone interview.

Table 5.1: Candidate carriers and interview status

| Candidate Carrier | Interview Status |
|---|--------------------|
| Aurigny Air Services | Completed |
| BMI Regional | Unable to complete |
| Blue Islands | Completed |
| Cardiff Aviation* | Unable to complete |
| CityJet | Completed |
| Citywing | Completed |
| Directflight | Unable to complete |
| Eastern Airways | Completed |
| FlyBe | Completed |
| Hebridean Air services | Completed |
| Jetstream Executive Travel Ltd* | Completed |
| Isles of Scilly Sky Bus | Completed |
| Links Air | Completed |
| Loganair | Completed |
| Stobart Air | Completed |
| Veritair (British International Helicopters)* | Unable to complete |

based in Cardiff as there is a greater array of commercial opportunities available. In some cases the carriers also believe there may be opportunities for evening flying (after the aircraft returns from Anglesey) or weekend flying. The ability to operate further flying would require some commercial flexibility within the PSO however, as current penalty clauses prohibit the ability to fly middle of the day services, in case the aircraft is late returning to Cardiff, and thus cannot operate the evening service on time or at all.

- Some operators also pointed to the opportunities which may be offered if greater commercial flexibility was offered in relation to the PSO route itself. In particular three opportunities were:
 - a. The ability to adjust the schedules on a Monday and Friday to offer two morning services on a Monday and two afternoon/evening services on a Friday. This would boost capacity at peak times and would allow more travellers the opportunity of accessing suitable services (which would then generate additional return services throughout the week). These services could be offered in place of the Monday evening/Friday morning flights, or in addition to.
 - b. The ability to provide extra capacity on any single day on an ad-hoc basis if demand indicates the need. This may coincide with political or cultural events taking place in the north or south.
 - c. The ability to offer flexible fares. Currently some travellers may choose road or rail to increase their flexibility of travel. The ability to offer a small number of flexible fares may allow more business travellers to access the service as they will not be tied to specific flights.
- The airlines are not keen on a triangle operation including Hawarden, even if part of the PSO, as this would increase costs with a 'dead-leg' sector between Hawarden and VLY and increased travel time for some passengers on the CWL-VLY routing. However, on the whole they are receptive to operating a stand-alone service to Hawarden if needed in the middle of the day, but crucially, only if included as part of the PSO.
- There is a view that any middle of the day services, whether to Hawarden or to another point on a commercial basis, may increase the carriers' cost base disproportionately, as this will require an additional aircraft crew to be based in Cardiff solely for one service. This may mean that a PSO service to Hawarden would be more expensive per flight than that to VLY. The carriers may also take into account the extra costs when submitting their CWL-VLY bid if they feel there is an expectation to find commercial services to operate.
- FlyBe, and Loganair, (franchised to FlyBe and flying under the FlyBe brand), have both stated that they already operate PSO services in the UK and do it well and as the FlyBe brand has a strong market presence this would help to promote new business on the route. They might also be able to attract more passengers flying onwards on other services at CWL.

• [REDACTED]

6 Future PSO Contract (2015-2019)

This section considers the options for a replacement PSO Air Service which would begin in 2015. Figure 6.1 sets out a process to evaluate options for service provision and transition to a new contract.

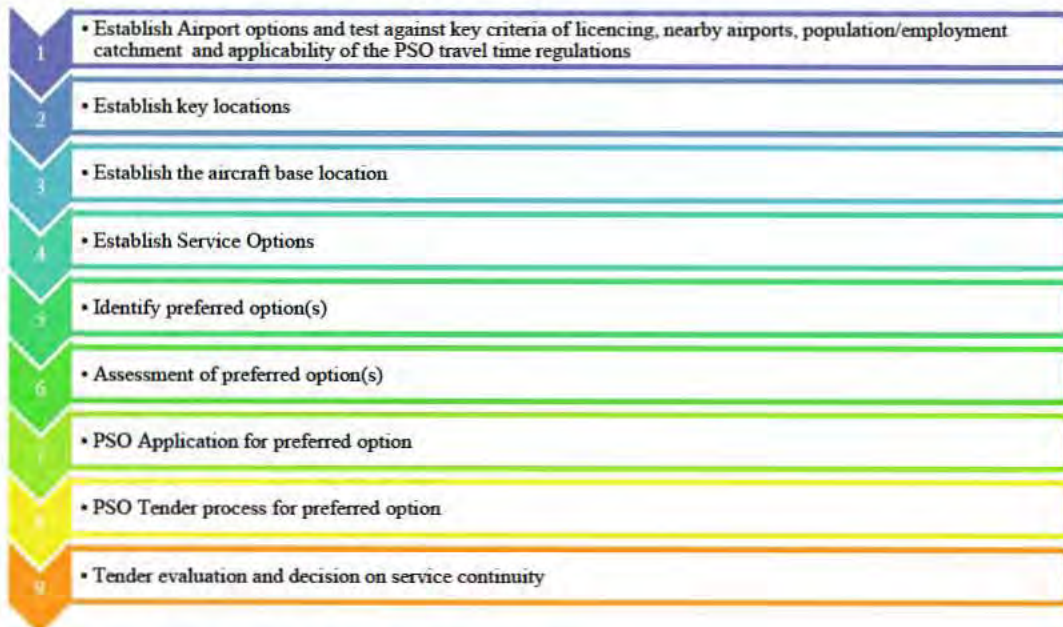


Figure 6.1: Process for future PSO Contract

The following sections 6.1 - 6.6 follow stages 1 to 6 of this process.

6.1 Airports

In looking at potential options for the Air Service the status and facilities of a number of airports/airfields have been reviewed:

- Aberporth;
- Anglesey (RAF Valley);
- Caernarfon;
- Cardiff;
- Gloucestershire;
- Hawarden;
- Haverfordwest;
- Llanbedr;
- Pembrey;
- RAF Mona;
- RAF St Athan;
- Swansea; and
- Welshpool.

For each location the following key information has been collated:

- Usage/licensing/operating agency;
- Runways;
- Facilities;
- Connecting transport;
- Landing charges; and
- Parking charges.

This information is included in Appendix C and the location of each airport in Wales is illustrated as Figure 6.2.



Figure 6.2: Reviewed Welsh airport locations

6.1.1 Airport Shortlisting

In order to shortlist the airports four key criteria have been assessed:

- Airport licensing;
- Nearby airports with comparable facilities;
- Applicability of the three hour PSO rail journey time limitation; and
- Population and Employment catchment within 50km of the airport.

Licensing

Of the airports considered all with the exception of Llanbedr are licensed by the Civil Aviation Authority (CAA) and are, thus, eligible to handle commercial scheduled Air Services providing they have infrastructure appropriate to the aircraft type proposed for the Intra Wales Air Service. The time taken to attain an Aerodrome Licence would currently preclude Llanbedr from forming part of the Air Service.

Result: Llanbedr not shortlisted

Nearby airports with comparable facilities

In north west and south east Wales there are regions where several of the airports considered are closely clustered:

- north west Wales: Anglesey, RAF Mona, Caernarvon
- south east Wales: St. Athan, Cardiff

Between these airports it is considered that both the facilities offered and the precedent set by the existing service mean that those airports are best suited to the Air Service in these areas.

Result: RAF Mona, Caernarvon and St. Athan not shortlisted

PSO journey time limitations

The PSO conditions referred to in section 2 mean that locations which are within three hours journey time of one another by rail (urban centre to urban centre) are not eligible to form part of a PSO Air Service.

In order to assess this typical rail journey times have been assessed for each origin destination pair combination. The result of this assessment, which for comparison also includes car journey times, is included as Appendix C.

Each location is at least three hours from at least one other location by rail. In some cases this is as much a result of the current rail infrastructure and services as it is the physical distance. However, on the basis of service objectives of connecting north and south Wales, rail journey times to Cardiff of less than three hours and car journeys to every other tested location of less than three hours Welshpool has not been shortlisted.

Result: Welshpool not shortlisted

Population and Employment Catchment

Table 6.1 details the employment and population catchment for each airport within 50 km radius. This gives an impression of the potential role of the airport in serving social and economic needs. The numbers in brackets are the rank order of the locations. Locations not shortlisted in this and other assessment stages are shaded grey.

Table 6.1: Population and Employment catchment within 50km radius of airports

| Airport | Employment | | Population | | Shortlisted |
|-------------------------|------------|------|------------|------|-------------|
| Aberporth Airport | 80,200 | (10) | 222,000 | (10) | ✓ |
| Anglesey Airport | 80,000 | (11) | 208,800 | (11) | ✓ |
| Caernarfon Airport | 96,800 | (8) | 264,900 | (8) | ✗ |
| Cardiff Airport | 846,300 | (3) | 2,121,100 | (3) | ✓ |
| Gloucestershire Airport | 788,500 | (4) | 1,785,800 | (4) | ✓ |
| Haverfordwest Airport | 68,200 | (13) | 186,100 | (13) | ✗ |
| Hawarden Airport | 1,301,500 | (1) | 3,211,100 | (1) | ✓ |
| Llanbedr Airport | 73,700 | (12) | 187,600 | (12) | ✗ |
| Mona Airport | 95,900 | (9) | 262,000 | (9) | ✗ |
| Pembrey Airport | 259,200 | (6) | 737,400 | (6) | ✓ |
| St Athan Airport | 848,600 | (2) | 2,166,000 | (2) | ✗ |
| Swansea Airport | 324,500 | (5) | 946,900 | (5) | ✓ |
| Welshpool Airport | 248,400 | (7) | 606,900 | (7) | ✗ |

On the basis that surrounding airports in south west Wales have greater population and employment catchment within a 50km radius, and that it has the lowest catchments of all locations considered Haverfordwest Airport has not been shortlisted.

Result: Haverfordwest not shortlisted.

6.1.2 Shortlisted Airports

The following airports have been shortlisted following the airport assessment:

- Aberporth Airport;
- Anglesey Airport;
- Cardiff Airport;
- Gloucester Airport;
- Hawarden Airport;
- Pembrey Airport; and
- Swansea Airport.

6.2 Key Locations

The objectives of the Air Service set out in section 2.4, state that the service must serve locations in north and south Wales. This divides the shortlisted airports into three clear categories set out in Table 6.2.

Table 6.2: Airports by location

| North Wales | South Wales | Not in Wales |
|------------------|-------------------|-------------------------|
| Anglesey Airport | Aberporth Airport | Gloucestershire Airport |
| Hawarden Airport | Cardiff Airport | |
| | Pembrey Airport | |
| | Swansea Airport | |

The Air Service must therefore serve at least one location from both the north and south Wales locations. Other locations may be served as part of the route.

The two north Wales locations have differing merits in terms of economic centre and level of accessibility and are both considered to be potential key locations for the Air Service to serve. In south Wales Cardiff Airport is identified as the key location in meeting the objective of removing barriers to economic, social and political integration in Wales.

The remaining locations are considered in the service options section. Sections 6.2.1-6.2.3 provide further detail on the identified key airport locations.

6.2.1 Cardiff Airport

Cardiff Airport (IATA code CWL) is an international airport owned by the Welsh Government which serves south Wales. Around 1.1m passengers passed through the airport in 2013 representing an increase over previous years. The airport is located at Rhoose, 12 km west of Cardiff city centre.

The airport is served by a number of regular scheduled flights serving a number of UK and European destinations as well as some limited long-haul locations.

The airport is connected to Cardiff city centre by the T9 bus service which operates at a 20 minute frequency with extended operating hours. Rhoose railway station lies to the south of the airport and has an hourly service to both Cardiff and

west Wales (via connection at Bridgend). There are also on-site parking and taxi facilities.

On 9 July a meeting was held with Cardiff Airport. During the meeting the following key points were raised in relation to the Air Service:

- The Air Service constitutes a small percentage of airport passengers but the airport is keen to retain the service and see it is an opportunity for connecting air travel at the airport. The airport considers this could be expanded to a Wales network.
- Cardiff airport can offer refuelling, maintenance and hanger facilities, and a number of aircraft are already based at Cardiff.
- The airport lies within a designated Enterprise Zone with associated aerospace activity this is likely to bring associated benefits as a result of economic activity related to other Enterprise Zones.

6.2.2 Anglesey Airport

Anglesey Airport (IATA code: VLY) is a civilian airport facility at RAF Valley which occupies a site leased from the Defence Infrastructure Organisation. The airport is managed by Anglesey County Council on behalf of Welsh Government who in turn sub-contract management of the terminal to Europa Bilfinger. Capital funding of £1.5m was invested by Welsh Government to develop a civilian passenger terminal (opened in 2007) at the Airport in order to establish the Intra Wales Air Service. The terminal building is basic in nature but of a good standard with nearby parking available.

Anglesey Airport makes use of the RAF Valley runway and air traffic control and as such civilian flights can only operate according to RAF operating hours which are 08:00-18:00 Monday to Thursday and 08:00-17:00 on Friday. The airport is closed at weekends.

Local bus services call at Anglesey Airport and connect to Bangor however these are infrequent and not well-timed for air passengers. There are parking facilities at the airport and nearby taxi operators serve the airport.

On 7 July 2014 a site visit to Anglesey Airport was undertaken. Observations from this site visit are included as Appendix D. It is judged that the terminal building could accommodate up to 50 passengers.

At present the airport is not compliant with the National Aviation Security Programme (NASP) as a result of several factors:

- Terminal procedural measures;
- Terminal security equipment; and
- Operation of the airfield area which does not maintain a Restricted Zone in order to differentiate between RAF operations and personnel.

Since the airport is not NASP compliant the size of scheduled aircraft is limited to a maximum of 19 seats or 10 tonnes despite a runway which is long enough to accommodate significantly larger aircraft (although fire cover may not be sufficient). As noted in section 5 the 19 seat limit of the current contract is a major limitation in the number of candidate carriers. For this reason a meeting was held

on 24 July 2014 between Arup, York Aviation, Aviation Analysis, Anglesey County Council and the Royal Air Force. [REDACTED]

[REDACTED] The key outcomes of the meeting were:

- The terminal procedural requirements could be overcome by revision of the current procedures, there may be staffing implications of these changes.
- The NASP requirements within the terminal building would require additional equipment to be purchased with associated capital and operating costs.
- The operational issues relating to the airfield are not considered to be insurmountable but would require involvement of a number of stakeholders and are likely to require around 12 months to implement.
- The RAF is willing to enter in to further discussion with WG on modifications to the airfield operation. In the near future the RAF are planning modifications to the airfield including areas used by the Air Service. It is likely to be beneficial to undertake any revisions to ensure NASP compliance as part of these works.
- The RAF currently has to decline requests from other civilian aircraft wishing to land at RAF Valley/Anglesey airport. Becoming NASP compliant may therefore have benefits for the RAF.
- The RAF suggested that there would be a cost to extend operating hours of the airfield as a result of staffing of Air Traffic Control and fire cover. Any changes to opening hours would require further negotiation and Welsh Government would need to submit a formal request for costs. It was noted that any change to opening hours would not be possible in the immediate future. The airport does not operate at the weekends and as such any additional weekend opening would incur significant operating costs.

As a result of the meeting it is apparent that there is potential to alter either the aircraft size or operating hours limits but that there is insufficient time remaining before a new contract begins to have confidence that these changes can be achieved. However, there is an opportunity to take action to address some the issues in the short term as the RAF are planning some modifications to the airfield such that it may be more cost effective to incorporate the NASP related changes concurrently.

6.2.3 Hawarden Airport

Hawarden Airport (IATA code: CEG) is located in Flintshire close to the border with England and 6.5km from Chester.

The airport is owned by Airbus who has a large facility located adjacent to the airport. Airbus makes frequent use of the airport for freight flights which transport aircraft components between UK and European locations.

Aviation Park Group (APG) is based at the airport and provides facilities, including a passenger terminal, for non-Airbus flights. Current conditions of operation imposed by Airbus mean that APG are not able to accept scheduled flights to the airport as a result of potential conflict with Airbus freight. There may however be the potential for Welsh Government to negotiate an exemption to this.

Since Hawarden Airport does not currently accept scheduled passenger flights it is unlikely that the airport is compliant with the NASP and would be limited to 19 seat/10 tonne aircraft. Hence action would be needed to address this if the airport is considered a candidate for a service but this is unlikely to be achievable in time for the current tender.

6.3 Aircraft Base Location

Of the key locations identified it is considered that Cardiff Airport represents the best location at which to base the aircraft. The reasons for this are:

- Flexibility and maximising operating hours;
- Airport facilities;
- Security compliance;
- Airlines with aircraft based at the airport; and
- Socio-economic role of Cardiff as the capital of Wales and most populous location with onward transport connections to the Cardiff Capital Region which has a population of 1.4m within 20 miles of Cardiff.

Although basing an aircraft at either Hawarden or Anglesey Airport would enable an earlier southern journey leg (and therefore a longer working day in Cardiff) it would reduce the attractiveness of the (now later) northbound journey. At Anglesey Airport there is also a limitation as to how much earlier the southbound service could depart as a result of RAF air control operating hours. The lack of other airport services at Anglesey and Hawarden Airports available to commercial operators for example refuelling, staff facilities, catering, maintenance, aircraft hangers etc. is also likely to make these airports less attractive than Cardiff Airport.

Therefore in developing the service options further it has been assumed that any future service will be based, and commence, at Cardiff.

6.4 Service Options and Appraisal

Following the preceding stages a number of service options have been identified, each of these uses Cardiff Airport as the aircraft base (and therefore morning origin) and serves at least one of the north Wales locations. Option 4 includes serving additional shortlisted airports.

6.4.1 Option 1: Variations on existing service

Table 6.3 Schedule for Option 1

| | |
|----|----------|
| AM | Cardiff |
| | Anglesey |
| | Cardiff |
| | |
| PM | Cardiff |
| | Anglesey |
| | Cardiff |

Option 1 is to retain the existing service pattern between Cardiff and Anglesey. As a result of section 6.2.2 this would include retaining operating times and aircraft capacity limits.

6.4.2 Option 2: Additional daytime location

Table 6.4: Schedule for Option 2

| | |
|---------|----------|
| AM | Cardiff |
| | Anglesey |
| | Cardiff |
| | |
| Daytime | Cardiff |
| | Hawarden |
| | Cardiff |
| | |
| PM | Cardiff |
| | Anglesey |
| | Cardiff |

Option 2 is to retain the existing AM and PM service pattern but to add a separate daytime trip to Hawarden.

6.4.3 Option 3: Additional location served AM/PM

Table 6.5: Schedule for Option 3

| | |
|----|--|
| AM | Cardiff |
| | Anglesey/Hawarden |
| | Aberporth/Anglesey/Hawarden/Gloucester/Pembrey/Swansea |
| | Cardiff |
| | |
| PM | Cardiff |
| | Anglesey/Hawarden |
| | Aberporth/Anglesey/Hawarden/Gloucester/Pembrey/Swansea |
| | Cardiff |

Option 3 is to make flights in the AM and PM periods but make this multi-leg between three locations.

6.4.4 Option 4: Commercial daytime use

Table 6.6: Schedule for Option 4

| | |
|---------|----------------------------|
| AM | Cardiff |
| | Anglesey |
| | Cardiff |
| | |
| Daytime | Commercial use of aircraft |
| | |
| PM | Cardiff |
| | Anglesey |
| | Cardiff |

Option 4 is as option 1 but with the operating airline making commercial use of the aircraft either in the early morning, daytime or evening.

6.5 Identification of Preferred Option(s)

6.5.1 Summary - Option 1

Option 1 has a proven customer base and would provide continuity of service. The locations served are remote from one another and the option will provide the greatest benefit in time saving. This option involves the least number of route miles and will therefore result in the lowest operating costs. Without commercial use of the aircraft at other times utilisation of the aircraft is low.

Table 6.7: Option 1 summary table

| | |
|---------------------|---|
| Key Benefits | <ul style="list-style-type: none"> Retain existing customer base Provide continuity of service Provide greatest time saving for N-S journeys |
| Key Risks | <ul style="list-style-type: none"> Relatively low population near Anglesey airport Operational constraints of Anglesey airport |
| Assessment | <ul style="list-style-type: none"> Preferred option to be assessed |

6.5.2 Summary - Option 2

Option 2 provides continuity of the existing service and serves a third location which has a high population and employment catchment area. The route miles for this option are the highest of those considered and operating costs can therefore be expected to be correspondingly high however the number of passengers than can be carried is also the greatest.

Flying to two locations in north Wales would provide good coverage of the market and the survey results on user origins and destinations suggest that the Air Service would be a viable option for the majority of location in north Wales.

There are however two significant identified risks related to this option:

- Hawarden Airport does not currently accept scheduled passenger flights. Unless WG are able to negotiate an exemption from this current condition it would not be possible to operate this option. It is unlikely that WG will be able to resolve this situation prior to issuing a tender for renewal of the PSO service.
- The travel time and location of Hawarden Airport in relation to Cardiff means that a PSO application including this route may be considered marginal or ineligible. Whilst rail journeys to north Wales locations such as Flint are currently in excess of 3 hours the airports proximity to Chester may mean that this is the comparison journey time assessed against the PSO regulations; currently typical rail journeys to Chester are also in excess of 3 hours but a limited number of journeys are already less than 3 hours and these times are set to reduce further as a result of Welsh Government funded line speed enhancements and redoubling works which commenced in June 2014.

Table 6.8: Option 2 summary table

| | |
|---------------------|---|
| Key Benefits | <ul style="list-style-type: none"> • Additional location served • Potential for additional patronage • Wider route 'network' |
| Key Risks | <ul style="list-style-type: none"> • Scheduled passenger services not currently permitted at Hawarden • Cardiff – Hawarden travel time marginal against PSO regulations |
| Assessment | <ul style="list-style-type: none"> • Preferred option to be assessed |

6.5.3 Summary - Option 3

Option 3 broadens the locations served by the Air Service by use of a 'triangle' route but at least one of the legs would be very short and tickets could not be sold for this section of the route under PSO regulations. Passengers travelling would influence available capacity for the alternate sections of the route, for example passengers flying Cardiff to Anglesey via Hawarden would limit capacity for Cardiff – Hawarden passengers and vice versa. Passenger journey time savings would also be eroded as passengers flying two legs would lose time to the landing and take-off at an intermediate airport.

Operating costs for this option will be greater than Option 1 but less than Option 2 but the need to take-off and land more will not make cost differences proportional to route miles.

In comparing the alternative destinations of Aberporth, Gloucester, Pembrey and Swansea there is the need to consider whether sufficient demand is likely to be present between any of the legs which would be available to passengers, namely:

- Anglesey/Hawarden to Aberporth;
- Anglesey/Hawarden to Pembrey;
- Anglesey/Hawarden to Swansea; or
- Anglesey to Gloucester.

Although some local case studies can be identified - for example the bases for the nuclear industry at Gloucester and Wylfa on Anglesey it is not considered that the current volumes of movement would be sufficient to justify the capacity available.

Therefore the most likely service pattern from Option 3 would be to serve Hawarden as a third point on the multi-leg journey.

From consultation with candidate carriers, Section 5.2, it is however apparent that airlines do not favour triangular operations as a result of the time penalty.

Table 6.9: Option 3 summary table

| | |
|---------------------|--|
| Key Benefits | <ul style="list-style-type: none"> • Additional location served • Potential for additional patronage • Wider route 'network' |
| Key Risks | <ul style="list-style-type: none"> • Tickets cannot be sold for 'short' leg • Passenger demand between legs may limit capacity • Additional locations have limited population/employment catchment • Erosion of passenger time savings |
| Assessment | <ul style="list-style-type: none"> • Not carried to assessment stage |

6.5.4 Summary – Option 4

It will not be possible to assess or test Option 4 as the commercial use and effect on the tender prices cannot be anticipated, hence this option, which is essentially a variant on option 1, will not be assessed further. This is however an attractive option with the potential to improve utilisation of the aircraft, provide connections with the PSO route and increase wider economic benefits by growing the available network of air routes for Wales.

Other commercial variants may also be possible for example evening or weekend routes but the same applies to these – any commercial use of the aircraft can reduce the required contribution to overhead.

Table 6.10: Option 4 summary table

| | |
|---------------------|--|
| Key Benefits | <ul style="list-style-type: none"> • Potential for additional patronage • Wider route 'network' • Improve aircraft utilisation • Decreased operational costs for PSO |
| Key Risks | <ul style="list-style-type: none"> • Potential for commercial operations to impact on reliability of PSO service |
| Assessment | <ul style="list-style-type: none"> • Preferred option (not assessed further) |

6.5.5 Preferred Options

Options 1 (and its sub-variant Option 4) and 2 are selected as the preferred options though the issues relating to the eligibility of the route and the restrictions on scheduled passenger flights at Hawarden Airport are acknowledged as significant risks to implementation of this service.

Option 3 will not be taken forward due to the issues relating to travel time penalties and the limited scope for patronage between the additional locations the majority of which do not have significant population or employment catchment.

6.6 Assessment of Preferred Options

The preferred options have undergone an assessment of demand, cost and subsidy requirement, and value for money. It should be noted that there are significant risks relating to the demand forecast and financial assessment. Forecasting demand for aviation is highly challenging whilst the outturn costs of the service and subsidy requirement will depend on the degree of market competition which is also uncertain.

The Intra Wales Air Service magnifies these issues as there is limited data on the underlying size of the market for travel and there are few comparator routes.

The analysis is intended to provide the Welsh Government an indication of value for money of alternative options and should not be used for financial planning purposes.

6.6.1 Patronage Forecast¹⁰

Overall Approach

Whilst we have access to data on the existing patronage, there are a number of reasons why the level of demand in the future may be different from today even for a comparable service. Notably, the market for domestic air travel in the UK is expected to increase as the economy recovers from recession. Improved marketing and a 're-launch' of the service might also be expected to stimulate higher demand. Furthermore, this study requires us to forecast demand for variants to the existing Air Service with respect to aircraft capacity and service pattern. Therefore we require an assessment of the future market potential for the Air Service.

There are two main challenges associated with forecasting demand for the Air Service. Firstly, there is insufficient data on the total market for travel between north and south Wales. Secondly, the degree of competition between air, rail and car travel between north and south Wales makes it difficult to identify comparator air services in other parts of the UK and Europe.

A simplified approach was therefore used, based on consideration of air market sizes on UK regional routes over long distances. The forecasting approach that has been developed for this service is based on comparator analysis and takes into account the nature of the service within the UK, characterised by a relatively peripheral region (dominated by smaller towns and at rural areas) at one end of the route, and a major conurbation at the other end of the route, exerting economic, cultural and political influences over the regional point. The comparators used in the analysis excluded those where services were between mainland cities and island communities as these were deemed unsuitable because of the reduced competitive constraints applied by road and rail travel alternatives. However, exclusion of these routes meant that there were only limited services

¹⁰ We emphasise that the forward-looking projections, forecasts, or estimates are based upon interpretations or assessments of available information at the time of writing. The realisation of the prospective financial information is dependent upon the continued validity of the assumptions on which it is based. Actual events frequently do not occur as expected, and the differences may be material. For this reason, we accept no responsibility for the realisation of any projection, forecast, opinion or estimate.

within the UK on which to base the statistical analysis which underpins the forecasts, limited to only five UK routes, including the current Cardiff – Valley service. The regression analysis was undertaken based on point-to-point passengers only, i.e. excluding those making onward connections at either end of the route. The routes used were:

- Aberdeen – Wick (twice-daily, weekday only)
- Edinburgh – Wick (once daily, middle of the day service)
- Newquay – London (twice/three-daily)
- Newquay – Manchester (once daily, middle of day service)
- Cardiff – Valley (twice-daily, weekday only)

There are unique characteristics of each route, which means there are no perfect comparators in the UK. For example, the Aberdeen to Wick service partly supports offshore energy production and the nuclear industry, potentially generating higher passenger levels; whilst in the case of the Intra-Wales Air Service, there is a perception among some stakeholders that this may currently be underperforming. However, in so far as some services may be over-performing and others underperforming, these may be expected to balance each other out within the statistical analysis and indeed this appears to be the case because the relationship between combined populations and passenger demand indicates a good level of correlation.

Cardiff – Anglesey

The catchment districts and total populations of relevance to the Cardiff – Anglesey service are shown in Table 6.11 below. The populations are based on those aged 16-64 in each unitary authority in order to be able to draw out comparable data for each UK airport in the analysis. The choice of Unitary Authorities covers all that were either a surface origin or destination for surveyed passengers using the existing Air Service.

Table 6.11: Assumed Catchment Data

| Location | Catchment Unitary Authorities | Population ¹¹ |
|----------|---|--------------------------|
| Cardiff | Caerphilly, Cardiff, Carmarthenshire, Merthyr Tydfil, Newport, Rhondda Cynon Taff, Swansea, Vale of Glamorgan | 1,062,400 |
| Anglesey | Anglesey, Conwy, Gwynedd | 182,900 |

These populations have been applied to the statistical analysis to determine the possible market potential for point-to-point passengers. In addition to this, there is anecdotal and survey evidence of a number of passengers using the service to make connections to other flights at Cardiff. Historically, we understand that this figure may have been higher than currently observed, driven by the attractiveness of the low fares services offered by bmibaby before its suspension of services from Cardiff. Therefore, an uplift has been applied to the point-to-point passenger demand based on the assumption that some passengers will continue to make connections at Cardiff.

¹¹ Source: Nomis

The combination of point-to-point passengers and onward connecting passengers indicates the total air market potential. However the size of the aircraft which could operate the route will also act to constrain demand for the service.

Therefore, assumptions have been made about the aircraft size, annual frequency of service and likely load factors. These assumptions are:

- **Aircraft Size:** We have considered market potential with two aircraft types, a 19-seat Jetstream 31 and a 33-seat Saab 340, accepting that the latter could not currently operate to Anglesey Airport;
- **Annual Frequency:** Although there may be some alterations to the actual flown frequency, we have assumed that the flight operates twice-daily in each direction on weekdays only. It is assumed that on average the route is flown for 51-weeks per year, which allows for a small number of lost services associated with public holidays.
- **Load Factors:** The route is currently achieving a 52% load factor. For the Jetstream 31 scenario, it is assumed that this is retained in Year 1 of a new contract, allowing the carrier time to improve marketing and make other schedule and fare adjustments to seek to improve passenger loads. For the Saab 340 scenario, it is assumed that the Year 1 load factor will be 30%, delivering an equivalent number of passengers to that of the Jetstream operation. In both cases, the load factors then step up incrementally over the next two years to a target load factor of 65% and then growing at 1% compound per annum.

The load factor target of 65% is based on the average load factor in 2013 across a selection of UK regional routes, included as Appendix F. The provision of capacity by an airline across the year and also across the days of the week will not perfectly match demand and thus it is unlikely that such a service would reach those seen on high density routes at around 80% year round. Based on these UK regional routes it would appear that 65% is likely to represent the balance of capacity and demand across the year, taking into account that some demand will be displaced from two flight legs, simply because there was insufficient capacity available on one of them, i.e. a passenger who cannot get their preferred flight in one direction will then not choose to fly in the other direction but will instead choose another travel mode for their return journey. At this average annual load factor, it is likely that there may be excess demand for flights at some times, e.g. Monday mornings and Friday afternoons, but that some mid-week flights may be operate with significantly lower load factors.

Three further assumptions are relevant to the forecasts:

Underlying demand growth rate. The DfT 2013 domestic air passenger growth rate of 1.8% per annum¹² has been applied. Although the Airports Commission has updated the overall passenger forecast with lower growth rates overall, these have not been officially adopted by DfT and the Commission does not, in any event, provide detailed growth rate information for domestic flights.

Business/Leisure split of passengers. Three surveys of the current Air Service each provide a different view of the current split of passengers travelling for

¹² *UK Aviation Forecasts*, Department for Transport, January 2013

business. Citywing, 2014: 56%, Arup, 2014: 78%, CAA, 2012: 66%. For the purpose of demand forecasting the central 66% figure has been assumed.

Split of diverted passengers by alternative mode. This assumption considers for new Air Service passengers, which mode of travel they would have otherwise used. The recent survey has been used to determine the preferred alternative modes of existing Air Service users and this proportion applied to trips switching to the Air Service. In addition to alternative modes they survey indicated that some passengers would not make their journey without the Air Service, and thus these are assumed to be stimulated. The assumptions are therefore that around 33.5% of passenger would divert from rail, 57% would divert from car and 9.5% would be new trips.

Cardiff – Hawarden

The approach to forecasting a once daily service to Hawarden Airport is based upon the forecast results for the Cardiff – Anglesey service. The population sizes for both the north-eastern districts of Wales (Flintshire, Denbighshire and Wrexham) and Chester/Cheshire West are broadly similar to the population seen in the catchment area for the current Anglesey service in north-west Wales. Using the regression analysis which underpins the Anglesey forecast would therefore generate passenger demand figures of a similar overall magnitude (both for north east Wales and Chester/Cheshire West, meaning that the overall demand potential would be twice that from north west Wales). However, given the significantly shorter surface journey times between this region and Cardiff, it is unlikely that the actual demand for Air Services would be the same as to/from Anglesey, despite the similar population size.

We have, therefore, projected the demand based on an analysis undertaken by Greenguage21 in relation to rail/air market shares.¹³ The study indicated that a rail journey time of around 5 hours, similar to that seen from Holyhead to Cardiff, would generate four times the number of air passengers to a route where the rail alternative was approximately 2.5-3 hours as seen from the Hawarden catchment area. Thus the forecasts for the Hawarden route are based on the following stages:

1. Pro-rata adjust the Anglesey forecast to match the population sizes of north-east Wales and Chester/Cheshire West;
2. Divide the passenger figures by four, to reflect the shorter journey time and influence of competing modes; and
3. Apply capacity constraints associated with frequency and load factors.

The main differences in the application of capacity are that it is assumed that the service will only be operated once-daily (middle of the day) during the week. It is considered that this timing will generate lower load factors as the flights will miss the peak operating times of day for business travellers. Two load factor scenario have been derived, one climbing from 52% to 60% load factor on both the Jetstream 31 and the Saab 340 and then growing at 1% compound per annum, and one achieving only 40% on both aircraft sizes and growing at 1% compound.

¹³ *The Impact of High Speed Rail on Heathrow Airport*, Greenguage21, March 2006

The likely flight schedule, fares compared to rail and the overall journey time (taking account of check-in etc.) means that there will be a significant risk that even these load factors may not be achieved however.

It is also assumed that for this service there would be no onward connecting passengers, due to the proximity of Liverpool and Manchester Airports to the northern end of the route.

Patronage Forecast

Table 6.12 below outline the demand potential and capacity constrained demand forecasts of the component parts of the route options for a range of scenarios.

Table 6.12: Summary Passenger Forecasts 2015 and 2018 (rounded to nearest 1,000)

| 2015 | | | 2018 | | |
|--|---|---------------------|----------------------------|---|---------------------|
| Total Air Passenger Demand | Capacity Constrained Passenger Forecast | Average Load Factor | Total Air Passenger Demand | Capacity Constrained Passenger Forecast | Average Load Factor |
| Cardiff - Anglesey Jetstream 31 | | | | | |
| ████ | ████ | ██ | ████ | ████ | ██ |
| Cardiff - Anglesey Saab 340 | | | | | |
| ████ | ████ | ██ | ████ | ████ | ██ |
| Cardiff - Hawarden Jetstream 31 (High load factor) | | | | | |
| ████ | ████ | ██ | ████ | ████ | ██ |
| Cardiff - Hawarden Saab 340 (High load factor) | | | | | |
| ████ | ████ | ██ | ████ | ████ | ██ |
| Cardiff - Hawarden Jetstream 31 (Low load factor) | | | | | |
| ████ | ████ | ██ | ████ | ████ | ██ |
| Cardiff - Hawarden Saab 340 (Low load factor) | | | | | |
| ████ | ████ | ██ | ████ | ████ | ██ |
| Source: York Aviation | | | | | |

The Cardiff - Anglesey route potential forecast is somewhat higher than the current passenger numbers. Anecdotally, we are led to believe that the current marketing of the service, likely to be the result of a limited budget allocation may be responsible for the shortfall against assessed potential. This acts in combination with few commercially attractive fares to stimulate discretionary travel and a schedule which restricts the business day particularly at the Cardiff end of the route, may limit market penetration. Hence, there is some risk that forecast results are overstated and that the route may already have reached a natural ceiling limit of demand. There is no way of verifying or testing this further as a result of the unique route characteristics.

In principle, the forecasts set out above assume that that an airline could generate higher passenger demand through stronger marketing, flexible fares or possibly more commercially attractive flight schedules. The ability of carriers on other similar routes in the UK to generate higher passenger loads may be partly a function of well-established routes and the greater market presence of the carriers

operating them (which often serve a number of routes). It should be noted, however, that the current fare levels are relatively low in comparison to the cost of the road or rail journey costs so there may be other actions required.

Overall, the forecasts presented represent the current best estimate of future patronage. As with all patronage forecasting estimates there are risks to the forecast however the current patronage is approximately 8,500 passengers per annum. The actual outturn is likely to be between the two, dependent on the strength of the operating offer and the carrier market presence.

6.6.2 Financial Assessment

A financial assessment of Options 1 and 2 (as outlined in 6.5.5) has been undertaken on the basis of the patronage forecasts given in Section 6.6.1 and a high level estimate of future operating costs for the services. The results given here are based on the assumption of a 19 seat aircraft only.

Revenue Forecast

The patronage forecasts have been used to forecast future fare revenue (average yield) assuming that the average fare remains unchanged from the existing service. It is also assumed that the fare for travel between Cardiff and Hawarden is the same as for Cardiff to Anglesey. An allowance for non-fare income (ancillary revenue) has also been made based on the level currently achieved by the operator. The patronage assumed for Option 2 is the sum of the Option 1 patronage and the Cardiff – Hawarden Jetstream 31 (high load factor) patronage, see Table 6.12.

Growing demand between 2014 and 2018 is expected to result in an increase in real terms revenue from just over £■■■■m per annum, to over £■■■■m per annum. Over the four year period, this equates to £■■■■m.

If option 2 is realised, overall revenue is expected to be higher by around ■■■% overall, giving a four year total of £■■■■m.

Table 6.13 - Fare Revenue Forecast (£s, 2014 prices), passengers to nearest 1,000

| | | 2014 | 2015 | 2016 | 2017 | 2018 | 4 Year Total |
|-----------------|----------------------|------|------|------|------|------|--------------|
| Option 1 | Passengers | ■■■■ | ■■■■ | ■■■■ | ■■■■ | ■■■■ | ■■■■ |
| | Average yield | ■ | ■ | ■ | ■ | ■ | ■ |
| | Ancillary revenue | ■■ | ■■ | ■■ | ■■ | ■■ | ■ |
| | Total Revenue | ■■■■ | ■■■■ | ■■■■ | ■■■■ | ■■■■ | ■■■■ |
| Option 2 | Passengers | ■ | ■■■■ | ■■■■ | ■■■■ | ■■■■ | ■■■■ |
| | Average yield | ■ | ■ | ■ | ■ | ■ | ■ |
| | Ancillary revenue | ■ | ■ | ■ | ■ | ■ | ■ |
| | Total Revenue | ■ | ■■■■ | ■■■■ | ■■■■ | ■■■■ | ■■■■ |

Operating Cost Forecast

As noted, operating costs are difficult to predict and will depend on the aircraft employed, the efficiency of the operator and the level of competition at tender stage. For this reason, the reported operating costs of the current operator are used as the basis for the operating cost forecast.

The costs given in Table 6.14 are the total eligible costs and therefore include allowance for operator overheads and profit margin. A more detailed breakdown of these costs is included as Appendix G which include landing and handling fees for Cardiff and Hawarden Airports, subsidy costs to Anglesey Airport are considered in the following section.

Continuation of Option 1 results in total costs over four years of £■■■■m. Option 2 is ■■■% higher at £■■■■m.

Table 6.14 - Forecast Eligible Costs

| | 2014 | 2015 | 2016 | 2017 | 2018 | 4 Year Total |
|-----------------|------|------|------|------|------|--------------|
| Option 1 | ■■■■ | ■■■■ | ■■■■ | ■■■■ | ■■■■ | ■■■■ |
| Option 2 | | ■■■■ | ■■■■ | ■■■■ | ■■■■ | ■■■■ |

Indicative Subsidy Requirement

Bringing the revenue and operating cost forecasts together allows an indication of future subsidy requirements to be given. Higher demand is expected to stimulate a slight reduction in subsidy costs over time and a significant reduction in the level of subsidy per passenger. If Option 2 is selected the overall level of subsidy would be higher but per passenger subsidy is expected to be reduced.

Table 6.15 - Fare Revenue Forecast (£s, 2014 prices)

| | | 2014 | 2015 | 2016 | 2017 | 2018 | 4 Year Total |
|-----------------|----------------------------------|------|------|------|------|------|--------------|
| Option 1 | PSO Subsidy | ■■■■ | ■■■■ | ■■■■ | ■■■■ | ■■■■ | ■■■■ |
| | Isle of Anglesey CC subsidy | ■■■■ | ■■■■ | ■■■■ | ■■■■ | ■■■■ | ■■■■ |
| | Total Subsidy Requirement | ■■■■ | ■■■■ | ■■■■ | ■■■■ | ■■■■ | ■■■■ |
| | Subsidy £ Per Passenger | ■ | ■ | ■ | ■ | ■ | ■ |
| Option 2 | PSO Subsidy | ■ | ■■■■ | ■■■■ | ■■■■ | ■■■■ | ■■■■ |
| | Isle of Anglesey CC subsidy | ■ | ■■■■ | ■■■■ | ■■■■ | ■■■■ | ■■■■ |
| | Total Subsidy Requirement | ■ | ■■■■ | ■■■■ | ■■■■ | ■■■■ | ■■■■ |
| | Subsidy £ Per Passenger | | ■ | ■ | ■ | ■ | ■ |

6.6.3 Economic Assessment

General Approach and Assumptions

The approach to economic appraisal has been refined from that used to complete the preliminary assessment (March 2014). The main change has been to use a value of time from a Department for Transport document ‘Rules and Modelling: A Users Guide to SPASM’¹⁴, which is specifically for air passengers rather than applying a value of time estimated for rail passengers. This reflects the fact that air passengers, who choose the mode which offers lowest travel time, are likely to place a higher value on their time (or will be in higher paid occupations) than those travelling by other modes. WebTAG guidance does not provide a specific value of time for air passengers and therefore the air value of time is based on a value developed for demand forecasting in the aviation sector.

The values of time for rail and air passengers are shown in Table 6.16.

Table 6.16: Comparison of WebTAG rail passenger/DfT air passenger value of time

| Value of Time Source | Value of time, 2014 prices, £/hr | |
|----------------------|----------------------------------|----------|
| | Work | Non-work |
| WebTAG (rail) | 35.62 | 6.74 |
| DfT (air) | 82.20 | 13.80 |

Because of the differing profile of air and rail passengers, the rail value of time may underestimate average users’ value of time. Therefore, the rail value of time is considered to represent a ‘lower bound’ estimate. However the degree to which these higher values of time are reflective of users of the Air Service is difficult to accurately assess.

The journey time benefits, previously calculated based on representative journeys between north and south Wales, are now informed by the results of the passenger survey. Based on the origins and destinations provided by respondents generalised journey costs have been calculated between representative zones. These are:

- Holyhead;
- Bangor;
- Llandudno;
- Wrexham;
- Deeside Industrial Park;
- Rhyl;
- Chester;
- Cardiff; and
- Swansea.

¹⁴ Department for Transport, SERAS Supporting Documentation, ‘Rules and Modelling: A Users Guide to SPASM’, January 2002, Halcrow Group Limited and Scott Wilson Kirkpatrick and Company Limited, paragraphs B33-B35

Newport has been excluded from the calculations as very few trips recorded in the survey involved travel to or from locations east of Cardiff.

The distribution of actual origins and destinations (given to the level of postcode sectors) has been used to calculate centroids from which journey times are calculated. Each zone has one centroid for origins and one for destinations.

The proportion of passengers travelling between each pair of origins and destinations is used to weight the generalised costs to produce an average.

The survey results showed that 78% of trips are for business. This was used to produce a weighted value of time based on the values given in Table 6.16.

Passengers have been divided into two groups for the calculation of generalised journey costs: those who are based in the north, travel south and return north; and those who are based in the south, travel north and return south. This replaces the previous classification by the direction of flight, and allows incorporation of appropriate costs and journey times, for instance airport parking charges which are only required at the 'home' airport.

Punctuality statistics from June 2014 revealed that actual journey times from Cardiff to Anglesey are considerably shorter than the advertised time of one hour. Regular passengers would know this and take the shorter journey time into account when assessing their travel options, so the average flight time of 41 minutes has been used. It has been assumed that a Cardiff to Hawarden would have the same journey time.

Air Travel Assumptions

A site visit to Anglesey Airport has enabled a number of previous assumptions about elements of the air journey to be replaced with observed information:

- cost and location of car parking;
- typical passenger arrival and wait time for a departure; and
- time taken from aircraft landing to passengers exiting the terminal.

Values for Cardiff Airport have been refined through further research whilst the Anglesey values have been assumed to apply to Hawarden Airport.

Data on passenger numbers and ticket revenues have been used to calculate a yield or average fare of £[REDACTED] for the Cardiff-Valley route. We have assumed the same fare applies to the Hawarden route and that the yield does not change over time (in real terms).

We have also modelled cost savings for passengers who travel to Cardiff to connect onto other flights. The calculation matches that for point-to-point passengers, except that Cardiff Airport itself becomes the destination, rather than the weighted average destination centroid, and there are no onward travel costs upon arrival at Cardiff.

Rail Travel Assumptions

In vehicle times and ticket prices for journeys made by rail have been obtained from the National Rail Enquiries website and assume an early morning departure on the outward leg, with a return journey later the same day.

Access times to train stations are calculated from the weighted average centroid of origins where survey data was available (i.e. north west Wales and south Wales). An assumption of 15 minutes has been used for Rhyl and 10 minutes for the remaining locations in north east Wales. We have assumed that people travel to the station by car and that there is no charge for parking.

A wait time of 10 minutes at the railway station has been assumed, in addition to the rail in vehicle time.

Car Travel Assumptions

Car journey times have been obtained from Google Maps, between the weighted average centroids of origins and destinations where survey data was available (i.e. north west Wales and south Wales) and using the town centres for the remaining locations in north east Wales. We have added a 5% uplift to reflect traffic congestion effects and an extra 10 minutes for a break.

We have assumed parking charges of £5 in Cardiff, Swansea and Chester, and zero elsewhere. This reflects the urban characteristics and the nature of the specific destinations (for instance, travellers to offices in business parks or industrial estates beyond the city centre would probably not have to pay for parking).

The length of the car journey from north to south Wales necessitates an overnight stay as part of a return journey in many cases (noted by survey respondents). Average rates of £78 per night for Cardiff and £72 per night for Swansea have been obtained from the annual Hotels.com Hotel Price Index. We have assumed that the lower Swansea rate applies to all other destinations in our calculations, and that 50% of all trips by car require an overnight stay. Trips by air or rail are assumed to require no overnight stay.

Car operating costs (fuel and non-fuel) have been calculated using WebTAG parameters, applied to the average driving distances, times and speeds as obtained from Google Maps.

Benefits of reduced car use have been calculated based on the values provided in WebTAG, applied to the proportion of passengers who would have travelled by car if the Air Service did not exist (as reported in the survey).

The environmental impact has been calculated using CO₂ emission rate of 165.1g per passenger km and a radiative forcing factor of 1.9, as provided in Defra/DECC guidelines.

Economic Assessment Results

The overall economic assessment compares discounted costs and benefits over a four year contract period for Options 1 and 2. For Option 2, both low and high growth patronage forecasts have been applied, reflecting the higher degree of uncertainty with respect to the introduction of a new route configuration.

Applying the air user value of time for all air service users gives an economic net present value (NPV) of £0.4m and a benefit cost ration (BCR) of 1.1:1 for Option 1. Option 2 has an NPV of between £0.3m and £0.9m and a BCR in the range 1.05:1 and 1.17:1.

This means that the Air Service might result in a return in the range of £1.05 to £1.17 for every £1 spent by the Welsh Government on the service.

From these results it is clear that the results of financial assessment are broadly comparable between the options.

It should be noted that the monetised assessment does not capture the wider economic benefits of the service as an enabler for economic activity including that which is directly stimulated by the Air Service and which would not have occurred without it. Therefore a broader consideration of value for money is required which takes into account the wider social and economic role of the service, rather than journey time savings alone.

It should also be noted that the assessment of travel time savings and user benefits is based strictly on end to end journey times by alternative modes. It does not take into account additional costs borne by business of alternative travel modes (such as accommodation and effects of travel fatigue)

7 Summary and Recommendations

7.1 Preferred Option

Option 1 with a daily service pattern of Cardiff – Anglesey – Cardiff, Cardiff – Anglesey – Cardiff is recommended. This represents a continuation of the existing service pattern. This option is recommended for the following key reasons:

- **Continuity of service provision.** There is a proven, albeit modest market for the service. The majority of current passengers are satisfied with the service and it is used by a significant proportion of business travellers from a range of employment sectors. There has also been significant Welsh Government capital investment at Anglesey airport to establish appropriate passenger terminal facilities.
- **Journey time savings.** The origin and destination served by this option represent one of the most significant time savings between airport locations in Wales. Despite improvements to the road and rail network this journey time is likely to remain a barrier to the locations served.
- **Operating costs.** Whilst additional services may result in additional benefits there are inevitable increases in operating cost which will have to be paid by Welsh Government from limited resources.
- **Commercial opportunities.** A simple service pattern with two return flights offers the greatest flexibility for carriers wishing to propose additional commercial uses of the aircraft.

In addition it is considered that there are two key risks to issuing a tender for Option 2 and that insufficient time is available to resolve prior to the end of the current PSO contract:

- Airbus UK, the owner of Hawarden Airport, do not currently permit scheduled passenger aircraft to use the airport. Whilst the Aviation Park Group operate a passenger terminal facility for charter flights at the airport it is likely that the airport would require some sort of investment (capital and opex) to accommodate the scheduled PSO service;
- The rail journey times between north east Wales and Cardiff are somewhat marginal against the PSO regulations which stipulate that the destinations served should be over three hours apart by rail journey. Rail journey times will also be improved in the near future as a result of Welsh Government investment on the route between north and south Wales via Wrexham and Chester.

7.2 Service Limitations

The current Air Service has limitations of aircraft size and operating hours that relate to use of Anglesey airport and which may act to limit the tender responses and/or patronage of the Air Service:

Aircraft size. The airport is currently not compliant with the National Aviation Security Programme (NASP) and as a result the size of passenger aircraft is limited to a maximum of 19 seats or 10 tonnes. Discussion with stakeholders, including RAF Valley, indicates that subject to capital investment, on-goings

costs, negotiation and approvals there is potential for the airport to become NASP compliant but the process to achieve this would take in the order of 12-18 months hence any PSO contract will need to retain the same restriction on aircraft size for the near future. There is a short term opportunity to address this, in part, in conjunction with planned airfield works by the RAF. This opportunity needs to be explored further as a matter of urgency.

Operating Hours/Days. The Air Service currently operates within the operating hours of RAF Valley. Discussion with RAF Valley indicates that subject to payment to cover the costs of Air Traffic Control, fire cover and associated operational staffing there may be the potential to extend operating hours of Anglesey Airport.

7.3 Variation of Contract Conditions

A key objective in maximising the viability of a future Air Service will be ensuring that the contract encourages value for money both through the contract requirements and through a competitive tender process which encourages commercial initiative.

Table 7.1 identifies areas of the contract that could be altered to improve the attractiveness, value for money and economic benefit derived from the service. The majority of the proposed variations are targeted at defining the basic service required and locations to be served but allowing a more market-led approach to encourage a range of tenders that can subsequently be evaluated for suitability rather than to narrow the contract such that potentially beneficial services become uncompliant. In addition to contract variations it is also proposed that a wider range of tender evaluation criteria are used to assess tenders received.

Table 7.1: Contract variations to be considered

| Area | Notes |
|-----------------|---|
| Aircraft size | <p>The aircraft size serving Anglesey airport is limited to 19 seats or 10 tonnes since the airport is not NASP compliant; however this limit may at some point in the future limit patronage and it is recommended that a break clause is included in the contract to cater for this eventuality. In order to benefit from the clause it would be necessary to ensure that Anglesey Airport achieved NASP compliance by the appropriate time.</p> <p>It is suggested that this break clause should enable the Welsh Government to request the carrier provides a larger aircraft if the patronage over the preceding six months exceeds 70% average load factor (of the 19 seat aircraft). Should the carrier be unable or unwilling to increase the size of the aircraft the clause would enable the service to be re-tendered. It is noted that some operators may not be able to comply with such a condition. An operator of an aircraft with 19 seats can operate under a 'B' Operator's Licence. To move to an 'A' Licence to operate larger aircraft would take a considerable time and might not be possible at all if the Operator couldn't pass the financial fitness test for an 'A' Licence. This may restrict the number of airlines who could participate in the procurement exercise.</p> |
| Penalty clauses | <p>Penalty clauses in the current contract (for services which do not operate or are significantly delayed) are significant and contribute to the current operator's decision not to utilise the aircraft for commercial flights in addition to the PSO service.</p> <p>It is suggested penalty clauses are revised in line with typical industry levels and only apply to instances that are under the carrier's control.</p> |

Table 7.1(contd): Contract variations to be considered

| Area | Notes |
|------------------------|--|
| Fare levels | <p>The previous contract set a limit of £59.45 to the fares (with an allowance for adjustment) but this may be unnecessarily restrictive. The ability for the operator to charge premium fares or to offer transferable tickets is likely to be beneficial to the subsidy requirement.</p> <p>It is recommended that this maximum (adjusted for interest) applies to the initial 60% of load factor (this is above the load factor that the service is currently operating at and in line with that observed on PSO services operating elsewhere) with a higher maximum fare permitted for the remaining tickets.</p> |
| Transferable ticketing | <p>Tickets sold for the current service are non-transferable.</p> <p>It is recommended that the contract permits operators to sell flexible tickets at a higher fare level which would permit passengers to alter their booking reflecting the needs of business travel.</p> |
| Flexible flights | <p>The previous contract requires a rigid number of flights but findings of this review indicate that on occasion it may be appropriate to increase the frequency of service as a result of peaks in demand or specific events.</p> <p>It is recommended that the contract makes allowance for this eventuality by providing flexibility to agree the operation of additional flights within the overall subsidy value limit.</p> |
| Subsidy payment | <p>The current contract makes a subsidy payment on the basis of deficit and at a fixed rate of 10% profit but does not significantly incentivise the operator to maximise passengers carried.</p> <p>It is recommended that an alternative mechanism could be adopted to achieve this based on a stepped profit allowance related to patronage with the current 10% profit at current patronage levels and lower/higher profit percentages around this figure corresponding to lower/higher patronage.</p> <p>Such a mechanism is more likely to incentivise operators to market the service, to encourage reasonable prices based on supply and demand, to carry a greater number of passengers and ultimately to give the best chance of creating a commercially viable route in future.</p> |

In addition to contract conditions the tender evaluation criteria, which are stated in the contract, but do not form part of the contract conditions, can be used to state and inform interested parties in elements of a service which would be attractive to the Welsh Government, Table 7.2 sets out the previous evaluation criteria and additional criteria that could be considered.

Table 7.2: Contract Evaluation Criteria

| Criteria | retain/remove/new criteria |
|--|----------------------------|
| Operational | |
| Minimum service frequency provided | retain |
| Minimum timing requirements met | retain |
| Minimum aircraft capacity provided | retain |
| Maximum fare levels within guidelines | retain |
| Complementary operating proposals (route development) | new |
| Route marketing proposals | new |
| Technical | |
| Air Operator to hold CAA Operating Licence | retain |
| Air Operator to hold Air Operator's Certificate | retain |
| Sufficient passenger and third party insurance | retain |
| Safety record | new |
| Provision of financial information | |
| The company's previous 3 years audited financial statements (profit & loss, balance sheet, cash flow) | retain |
| The total maximum financial requirement for Years 1 to 4 | retain |
| Projections of the Trading and Profit and Loss Account, the Cash Flow and Balance Sheet, for 2014-15 and each 12 month period to the end of the contract | retain |
| Tender completion | |
| Acceptance of Terms & Conditions | retain |
| Acceptance of period of supply and commencement date | retain |
| Acceptance of payment terms | retain |

7.4 Next Steps

Following this review of the current Intra Wales Air Service a number of next steps are recommended:

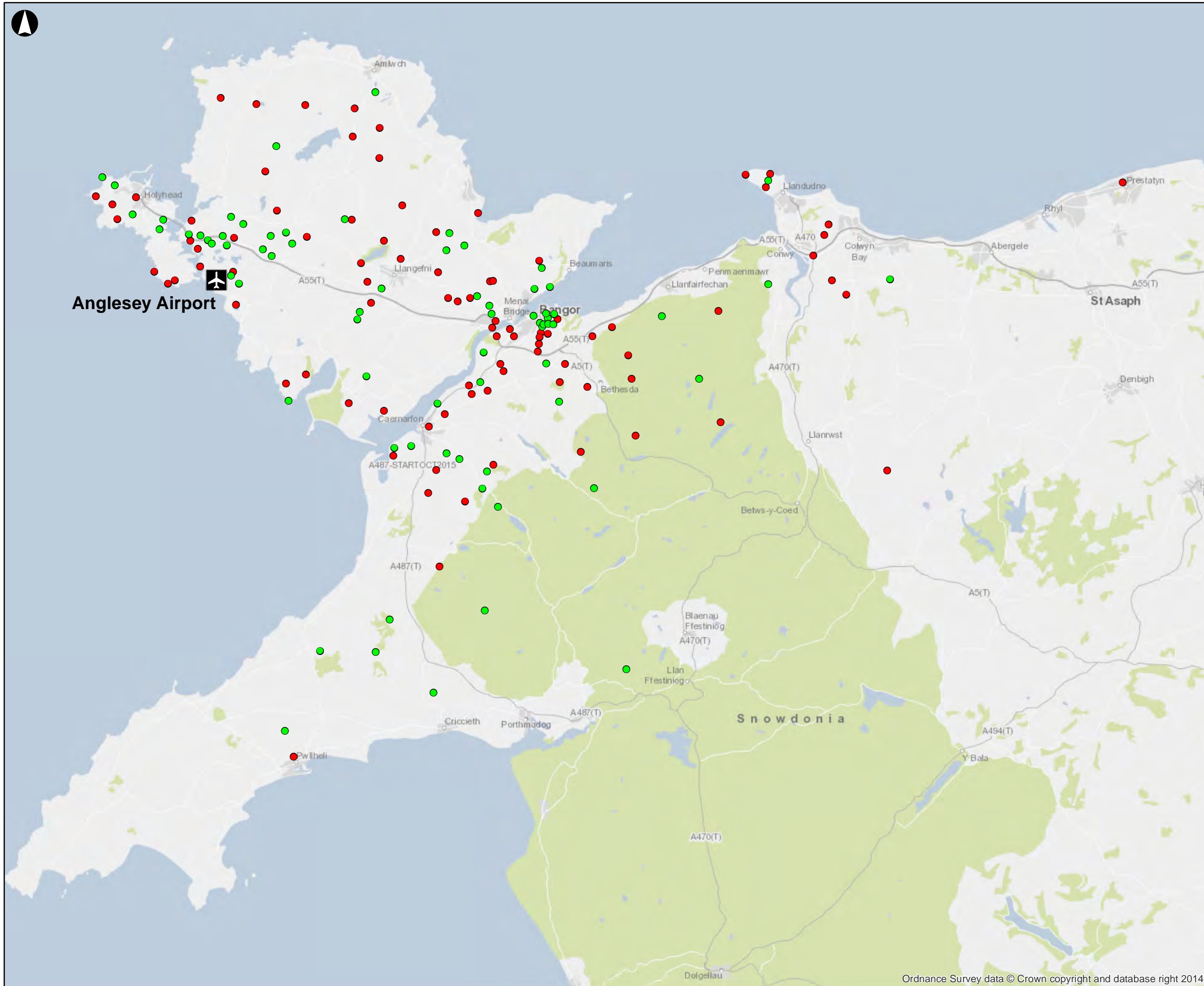
- Decision on whether to re-tender an Intra Wales Air Service;
- Preparation of contract documents;
- Issue of invitation to tender documents and PSO application;
- Receipt of PSO tenders;
- Evaluation and assessment of PSO tenders based on PSO service objectives, evaluation criteria and the imperative to maximise value for money; and
- Award of PSO contract;

7.5 Complementary Measures

Following this review of the current Intra Wales Air Service a number of complementary measures have been identified:

- Maintain accurate passenger count data via a verifiable methodology and if necessary via an independent source;
- Undertake periodic passenger surveys using a consistent set of survey questions to monitor air service use, performance and satisfaction;
- Formal Welsh Government communication with Airbus into the potential for future passenger air services to use Hawarden Airport (including the continuation of the Intra Wales Air Service using Hawarden in the case of adverse weather or unexpected closure periods at Anglesey Airport);
- Request formal quotations from the Ministry of Defence for extension of operating hours at RAF Valley for both weekdays (per hour) and weekends (per day);
- Undertake consultation with public transport operators serving Anglesey Airport to investigate the potential for more frequent and/or better coordinated services to connect to the air service;
- Review of Anglesey Airport security arrangements including costed assessment of NASP compliance; and
- Discussion with RAF Valley on programmed runway works which may offer a cost effective manner in which to achieve NASP compliance.

Figures

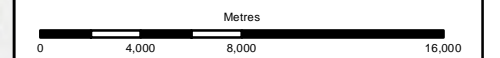


Legend

- Cardiff to Anglesey Journey Destinations
1 Dot = 1 Passenger
- Anglesey to Cardiff Journey Origins
1 Dot = 1 Passenger
- Airport

| | | | | |
|----|------------|----|----|----|
| D1 | 2014-07-28 | MG | OR | RB |
|----|------------|----|----|----|

| | | | | |
|-------|------|----|------|------|
| Issue | Date | By | Chkd | Appd |
|-------|------|----|------|------|



ARUP

Client

Welsh Government

Job Title

Intra Wales Air Services

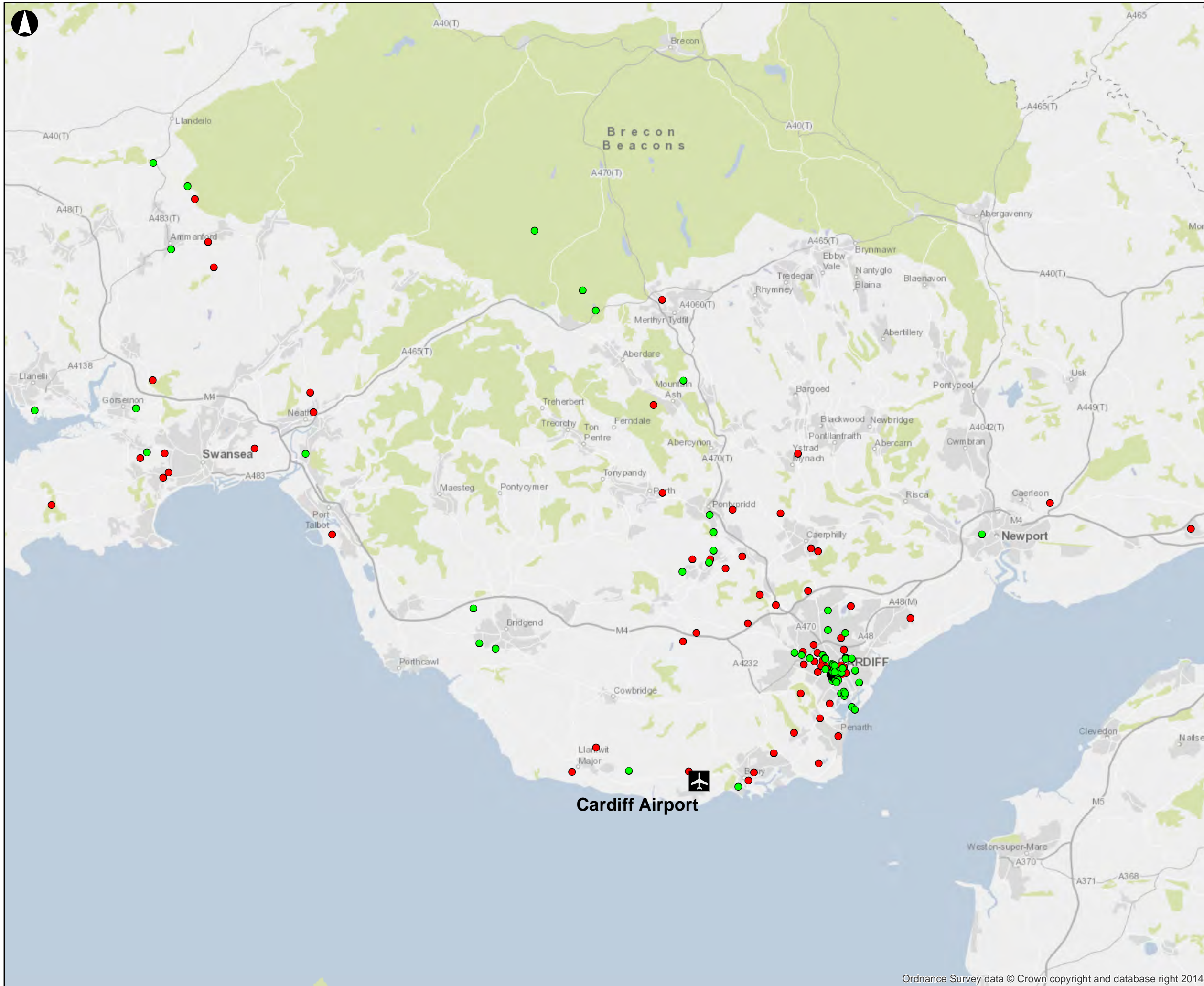
**Survey Origin/Destination Postcodes
North Wales**

Scale at A3

1:300,000

| | |
|------------------|----------------|
| Job No | Drawing Status |
| 227259-00 | Draft |

| | |
|------------|-----------|
| Drawing No | Issue |
| - | D1 |

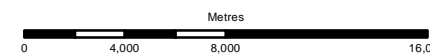


Legend

- Anglesey to Cardiff Journey Destinations
- 1 Dot = 1 Passenger
- Cardiff to Anglesey Journey Origins
- 1 Dot = 1 Passenger
- Airport

| | | | | |
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| D1 | 2014-07-28 | MG | OR | RB |
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| Issue | Date | By | Chkd | Appd |
|-------|------|----|------|------|



ARUP

Client

Welsh Government

Job Title

Intra Wales Air Services

**Survey Origin/Destination Postcodes
South Wales**

Scale at A3

1:300,000

| | |
|------------------|----------------|
| Job No | Drawing Status |
| 227259-00 | Draft |

| | |
|------------|-----------|
| Drawing No | Issue |
| - | D1 |

Appendix A

Survey Form



Intra Wales Air Service Passenger Survey

The Welsh Government is reviewing the operation of the Intra Wales Air Service between Cardiff and Anglesey. In order to inform this review we would like to **understand the use of the service and the views of passengers**.

Please complete the survey below for the journey you are making today. Regular passengers may be asked to complete the survey more than once. Even if you have completed the survey before please complete this survey for the journey you are currently making so that the travel patterns of regular passengers can be understood.

Your response will remain anonymous. Thank you for your participation.

1. Today's Date (dd/mm/yy):

2. Time

3. Direction *Please select one only*

Cardiff to Anglesey

Anglesey to Cardiff

4a. Please tell us the town and first four or five digits of the postcode of where you started this journey? For example, for CF10 4QP write CF10 4.

Please write clearly and in block capitals

Town

| | | | | | | | |
|---|---|---|---|--|---|--|--|
| C | F | 1 | 0 | | 4 | | |
|---|---|---|---|--|---|--|--|

Postcode

| | | | | | | | |
|--|--|--|--|--|--|--|--|
| | | | | | | | |
|--|--|--|--|--|--|--|--|

4b. How did you travel between this address and the airport? *Please select one only*

Own car

Bus

Taxi

Hire car

Train

Other

5a. Please tell us the town and first four or five digits of the postcode of your destination?

Please write clearly and in block capitals

Town

Postcode

| | | | | | | | |
|--|--|--|--|--|--|--|--|
| | | | | | | | |
|--|--|--|--|--|--|--|--|

5b. How will you travel between the airport and this address? *Please select one only*

Own car

Bus

Taxi

Hire car

Train

Other

6. Is this the outbound or return journey today? *Please select one only*

Outbound

Return

7. If this flight is part of a return journey, how long will you be/were you away between flights? *Please write in*

 days

8a. What is the purpose of your journey today? *Please select one only*

Tourism Travel to usual place of work

Leisure Employers business (e.g. meetings)

Other (*please state*)

8b. If you stated 'Employers business' in 8a, please tell us how important this service is to your business needs. *Please write in*

8c. If you are travelling on business is your employer...? *Please select one only*

Welsh Government Education Sector

UK Government & Agencies Private Sector

Local Government Self Employed

NHS Other (*please state*)

9. How often do you make this journey? *Please select one only*

Several times a week Weekly Monthly Less frequently First journey

10. What is your main reason for using the Intra Wales Air Service today? *Please select one only*

Time-saving Comfort

Cost-saving Health & Safety

Other (*please state*)

11. If you had not used the air service would you have still made this trip? If yes please state how. *Please write in*

12. Does the are service meet all of your current needs? How could the service be improved to better meet your needs? *Please write in*

13. If you have any other comments on the air service please tell us here. *Please write in*

Thank you for your time



Arolwg Teithwyr Gwasanaeth Awyr Mewnol Cymru

Mae Llywodraeth Cymru'n cynnal arolwg o Wasanaeth Awyr Mewnol Cymru rhwng Caerdydd ac Ynys Môn. Fel rhan o'r arolwg yma hoffem ddeall **sut mae'r gwasanaeth yn cael ei ddefnyddio a chasglu barn teithwyr.**

Cwblhewch yr holiadur isod ar gyfer y siwrnai rydych yn ei gwneud heddiw os gwelwch yn dda. Mae'n bosibl y bydd teithwyr rheolaidd yn derbyn cais i gwblhau'r holiadur ar fwy nac un achlysur. Os ydych wedi cwblhau'r holiadur o'r blaen, gofynnwn i chi gwblhau'r holiadur ar gyfer eich siwrnai bresennol fel y gallwn ddeall patrymau teithio teithwyr rheolaidd.

Bydd eich ymateb yn aros yn anhysbys. Diolch am eich cyd-weithrediad.

1. Dyddiad Heddiw (dd/mm/bb):

2. Amser

3. Cyfeiriad eich Taith *Dewiswch un yn unig*

Caerdydd i Ynys Môn

Ynys Môn i Gaerdydd

4a. Rhowch fanylion y dref a'r pedwar neu bum digid cyntaf o'r côd post ar gyfer man cychwyn y daith hon? Er enghraifft, ar gyfer CF10 4QP ysgrifennwch CF10 4.

Ysgrifennwch yn glir ac mewn llythrennau bras

Tref

| | | | | | | | |
|---|---|---|---|--|---|--|--|
| C | F | 1 | 0 | | 4 | | |
|---|---|---|---|--|---|--|--|

Côd Post

| | | | | | | | |
|--|--|--|--|--|--|--|--|
| | | | | | | | |
|--|--|--|--|--|--|--|--|

4b. Sut wnaethoch chi deithio rhwng y cyfeiriad hwn a'r maes awyr? *Dewiswch un yn unig*

Car personol

Bws

Tacsi

Car wedi ei logi

Trên

Arall

5a. Rhowch fanylion y dref a'r pedwar neu bum digid cyntaf o'r côd post ar gyfer pen eich taith? *Ysgrifennwch yn glir ac mewn llythrennau bras*

Tref

Côd Post

| | | | | | | | |
|--|--|--|--|--|--|--|--|
| | | | | | | | |
|--|--|--|--|--|--|--|--|

5b. Sut fyddwch chi'n teithio rhwng y maes awyr a'r cyfeiriad hwn? *Dewiswch un yn unig*

Car personol

Bws

Tacsi

Car wedi ei logi

Trên

Arall

6. A'i hon yw'r siwrnai allan neu yn ôl heddiw? *Dewiswch un yn unig*

Allan

Yn ôl

7. Os yw'r daith hon yn rhan o siwrnai ddwy ffordd, pa mor hir fyddwch chi / oeddech chi i ffwrdd rhwng dwy ran y siwrnai?

Ysgrifennwch yn y blwch

diwrnod

8a. Beth yw pwrpas eich siwrnai heddiw? *Dewiswch un yn unig*

Twristiaeth

Teithio i le gwaith arferol

Hamdden

Busnes cyflogwr (e.e. cyfarfodydd)

Arall (nodwch)

8b. Os mai 'Busnes cyflogwr' oedd eich ateb i 8a, dywedwch wrthym pa mor bwysig yw'r gwasanaeth hwn i anghenion eich busnes. *Ysgrifennwch isod*

8c. Os ydych yn teithio ar fusnes, eich cyflogwyr yw...? *Dewiswch un yn unig*

Llywodraeth Cymru

Sector Addysg

Llywodraeth y DU ac asiantaethau

Sector Gyheddus

Llywodraeth Leol

Hunan Gyflogedig

Gwasanaeth Iechyd Cenedlaethol

Arall (nodwch)

9. Pa mor aml ydych yn gwneud y siwrnai hon? *Dewiswch un yn unig*

Sawl gwaith yr wythnos

Yn wythnosol

Yn fisol

Llai aml

Siwrnai gyntaf

10. Beth yw'ch prif reswm am ddefnyddio Gwasanaeth Awyr Mewnol Cymru heddiw?

Dewiswch un yn unig

Arbed amser

Cysur

Arbed Arian

Iechyd a Diogelwch

Arall (nodwch)

11. Os na fydddech wedi defnyddio'r gwasanaeth awyr a fydddech wedi gwneud y daith hon? Os bydddech, dywedwch wrthym sut y bydddech wedi teithio. *Ysgrifennwch isod*

12. Ydi'r gwasanaeth yn ateb eich holl ofynion ar hyn o bryd? Sut allai'r gwasanaeth gael ei wella er mwyn ateb eich gofynion yn well? *Ysgrifennwch isod*

13. Os oes gennych unrhyw sylwadau eraill ar y gwasanaeth awyr, nodwch yma os gwelwch yn dda. *Ysgrifennwch isod*

Diolch am eich amser

Appendix B

Carrier Surveys (Redacted)

Appendix C

Alternative Airport Information Table and Journey Time Comparison

| Airport Name | Licensed | Location | County | Usage/Operating Agency | Runways | Facilities | Notes | 50 km Population catchment rank (Highest 1, Lowest 13) | 50km Employment catchment rank (Highest 1, Lowest 13) | PSO Eligible? | Shortlisted? | Appraised? |
|-----------------------|------------------------|---------------------|-------------------|--|--|---|--|---|--|---------------|--------------|------------|
| Aberporth | Yes (Ordinary) | Aberporth | Ceredigion | Public/Civil Government | 4124 x 98 feet (1257 x 30 metres) | Additional grass runway | There is also a shorter 1771 feet (540 metre) runway unlicensed Main runway restriction for jets | 10 | 10 | Yes | Yes | No |
| Anglesey (RAF Valley) | Civilian Enclave (RAF) | Llanfair yn Neubwll | Isle of Anglesey | Public/Civil Government | 7513 feet (2290 metres) | Passenger terminal, parking, vending machines | Currently used by Intra Wales Air Service | 11 | 11 | Yes | Yes | Yes |
| Caernarfon | Yes (Ordinary) | Caernarfon | Gwynedd | Public/Civil Government | 3543 x 75 feet (1080 x 23 metres) 3074 x 75 feet (937 x 23 metres) | Bank/Post office | Only shorter runway licensed, (longer runway unlicensed). Licensed runway length OK for J31 & DO228 only. | 8 | 8 | Yes | No | No |
| Cardiff | Yes (Public) | Rhoose | Vale of Glamorgan | Public/Civil Government | 7848 x 151 feet (2392 x 46 metres) | Hotel 0.5 miles, Café, Medical facilities | Currently used by Intra Wales Air Service | 3 | 3 | Yes | Yes | Yes |
| Gloucestershire | Yes (Public) | Staverton | Gloucestershire | Public/Civil Government | 4695 x 121 feet (1431 x 37 metres) 3241 x 111 feet (988 x 34 metres) 2621 x 59 feet (799 x 18 metres) | Flying School, Shop, Restaurant, Bar, Limited First Aid | Occasional military flights, (no longer a joint Military and Public site) | 4 | 4 | Yes | Yes | No |
| Hawarden | Yes (Ordinary) | Chester | Flintshire | Public/Civil Government | 6702 x 148 feet (2043 x 45 metres) | Car parking, 24 hour security, executive lounge, aircraft handling, cabin cleaning, hangars | Airport owned by Airbus who do not currently permit scheduled flights to land at the airport. | 1 | 1 | Yes | Yes | Yes |
| Haverfordwest | Yes (Ordinary) | Haverfordwest | Pembrokeshire | Public/Civil Government | 5000 x 148 feet (1524 x 45 metres) 3608 x 148 feet (1100 x 45 metres) | 50 short term parking, 50 long term parking spaces Hangarage (overnight parking), Café | Fire cover RFS Category 1 with ability to increase to Category 2 on request. Operated by Pembrokeshire County Council. Manned 0915 -1630. | 13 | 13 | Yes | Yes | No |
| Llanbedr | No | Llanbedr | Gwynedd | Public? (Status Unknown) | 7500 x 151 feet (2286 x 46 metres) 4207 x 151 feet (1282 x 46 metres) 4328 x 151 feet (1319 x 46 metres) | Parking, aircraft hangers | Llanbedr is bidding to be a SpacePort Site to be used to test UAV (Unmanned Aeronautical Vehicles) | 12 | 12 | Yes | No | No |
| Pembrey | Yes (Ordinary) | Pembrey | Carmarthenshire | Public/Civil Government | 2614 x 98 feet (797 x 30 metres) (1148 x 30 feet (350 x 30 metre extension planned/constructed?) | Restaurant, Lounge, Parking, Refuelling Facilities | Not known if runway extension is in place, (used/unused), or still to be constructed With extension some restriction to some props and all jets. Without extension only DO228 | 6 | 6 | Yes | Yes | No |
| RAF St Athan | (RAF) | St Athan | Vale of Glamorgan | Military | 5997 x 141 feet (1828 x 43 metres) | Military use | Very close to Cardiff Airport. Military use therefore no current civilian aircraft use. | 2 | 2 | Yes | No | No |
| RAF Mona | (RAF) | Anglesey | Isle of Anglesey | Military (Used as a relief airfield to RAF Valley) | 5180 x 150 feet (1579 x 46 metres) | Military use | Military use therefore no current civilian aircraft use. | 9 | 9 | Yes | No | No |
| Swansea | Yes (Ordinary) | Pennard | Swansea | Public/Civil Government | 4429 x 150 feet (1350 x 46 metres) 2811 x 59 feet (857 x 18 metres) | Hotels close, Restaurants/café, limited medical facilities | Short runway MTOW 5,700 kg only. Parking charges typically included in landing fee. Main runway length - jet a/c restriction | 5 | 5 | Yes | Yes | No |
| Welshpool | Yes (Ordinary) | Welshpool | Powys | Public/Civil Government | 3346 x 59 feet (1020 x 18 metres) | Café, briefing room, weather info | Runway length restricts some props and all jets | 7 | 7 | No | No | No |

| | |
|--|--|
| | Airport not shortlisted |
| | Airport shortlisted but not appraised |
| | Airport shortlisted and related option appraised |

Travel Times - Car. Source Google Maps

| | Cardiff | Anglesey (RAF Valley) | Llanbedr | Hawarden | RAF St Athan | RAF Mona | Haverfordwest | Swansea | Caernarfon | Welshpool | Aberporth | Pembrey |
|-----------------------|--------------|-----------------------|--------------|--------------|--------------|--------------|---------------|--------------|--------------|--------------|--------------|--------------|
| Cardiff | | 04 34 | 03 32 | 03 34 | 00 10 | 04 33 | 01 50 | 01 07 | 04 06 | 02 40 | 02 05 | 01 22 |
| Anglesey (RAF Valley) | 04 34 | | 01 37 | 01 22 | 04 45 | 00 16 | 04 45 | 04 21 | 00 48 | 02 10 | 03 19 | 04 01 |
| Llanbedr | 03 32 | 01 37 | | 02 00 | 03 52 | 01 35 | 03 10 | 03 28 | 01 08 | 01 35 | 02 26 | 03 07 |
| Hawarden | 03 34 | 01 22 | 02 00 | | 03 43 | 01 19 | 03 53 | 03 38 | 01 29 | 01 00 | 03 11 | 03 33 |
| RAF St Athan | 00 10 | 04 45 | 03 52 | 03 43 | | 04 41 | 01 49 | 01 52 | 04 14 | 02 51 | 02 03 | 01 16 |
| RAF Mona | 04 33 | 00 16 | 01 35 | 01 19 | 04 41 | | 04 00 | 04 18 | 00 45 | 02 07 | 03 16 | 03 57 |
| Haverfordwest | 01 50 | 04 45 | 03 10 | 03 53 | 01 49 | 04 00 | | 01 20 | 03 33 | 02 52 | 00 49 | 00 59 |
| Swansea | 01 07 | 04 21 | 03 28 | 03 38 | 01 52 | 04 18 | 01 20 | | 03 51 | 02 37 | 01 33 | 00 41 |
| Caernarfon | 04 06 | 00 48 | 01 08 | 01 29 | 04 14 | 00 45 | 03 33 | 03 51 | | 01 59 | 02 50 | 03 32 |
| Welshpool | 02 40 | 02 10 | 01 35 | 01 00 | 02 51 | 02 07 | 02 52 | 02 37 | 01 59 | | 02 13 | 02 34 |
| Aberporth | 02 05 | 03 19 | 02 26 | 03 11 | 02 03 | 03 16 | 00 49 | 01 33 | 02 50 | 02 13 | | 01 13 |
| Pembrey | 01 22 | 04 01 | 03 07 | 03 33 | 01 16 | 03 57 | 00 59 | 00 41 | 03 32 | 02 34 | 01 13 | |

Travel Times - Rail. Text in bold denotes rail destinations. Note: *Cambrian Line disruptions affecting West Coast travel*

| | Cardiff Cardiff Central | Anglesey (RAF Valley) Valley | Llanbedr | Hawarden Chester | RAF St Athan Cardiff Central | RAF Mona Llanfairpwll | Haverfordwest Haverfordwest | Swansea Swansea | Caernarfon Bangor | Welshpool Welshpool | Aberporth Carmarthen | Pembrey Pembrey & Burry Port |
|------------------------------|-------------------------|------------------------------|--------------|------------------|------------------------------|-----------------------|-----------------------------|-----------------|-------------------|---------------------|----------------------|------------------------------|
| Cardiff Cardiff Central | | 04 46 | 04 54 | 03 08 | | 04 18 | 02 29 | 00 55 | 04 08 | 02 28 | 01 51 | 01 20 |
| Anglesey (RAF Valley) Valley | 05 21 | | 06 41 | 01 41 | 05 21 | 00 23 | 08 35 | 06 23 | 00 31 | 04 15 | 07 11 | 07 00 |
| Llanbedr | 05 07 | 07 29 | | 04 42 | 05 07 | 07 05 | 07 30 | 05 59 | 06 01 | 02 26 | 06 50 | 06 26 |
| Hawarden Chester | 02 56 | 01 46 | 03 56 | | 02 56 | 01 18 | 05 33 | 03 59 | 01 00 | 01 30 | 04 47 | 04 26 |
| RAF St Athan Cardiff Central | 00 00 | 04 46 | 04 54 | 03 08 | | 04 18 | 02 29 | 00 55 | 04 08 | 02 28 | 01 51 | 01 20 |
| RAF Mona Llanfairpwll | 04 46 | 00 23 | 06 18 | 01 23 | 04 46 | | 07 45 | 06 00 | 00 08 | 03 39 | 06 48 | 06 17 |
| Haverfordwest Haverfordwest | 02 24 | 08 40 | 09 11 | 05 42 | 02 24 | 08 16 | | 01 26 | 07 05 | 06 26 | 00 37 | 00 59 |
| Swansea Swansea | 00 54 | 06 08 | 06 25 | 04 18 | 00 54 | 05 42 | 01 27 | | 05 40 | 03 54 | 00 48 | 00 24 |
| Caernarfon Bangor | 04 20 | 00 30 | 05 12 | 01 09 | 04 07 | 00 06 | 07 01 | 05 30 | | 02 45 | 06 21 | 05 59 |
| Welshpool Welshpool | 02 38 | 04 59 | 02 25 | 02 12 | 02 38 | 04 35 | 05 07 | 03 33 | 03 33 | | 04 20 | 04 03 |
| Aberporth Carmarthen | 01 52 | 07 01 | 07 16 | 05 09 | 01 52 | 06 40 | 00 36 | 00 49 | 06 32 | 04 47 | | 00 23 |
| Pembrey Pembrey & Burry Port | 01 24 | 06 43 | 06 55 | 04 48 | 01 24 | 06 19 | 01 03 | 00 26 | 06 12 | 04 26 | 00 26 | |

Appendix D

Anglesey Airport Site Visit Observations



York Aviation

**Welsh Assembly Government
Anglesey Airport Site Visit – 7th July 2014
16:00 to 18:00 – to witness tea-time arrival and departure operation**

Briefing Note

Terminal

1. Single story almost square structure. Very clean and well maintained – internally and externally.
2. Simple layout: entrance lobby opening in to landside area with 30 seats, one check-in/reception desk with weigh scale, one car hire desk, (Europe, National, Alamo), 3 internet desks attached to column, one vending unit – dual function hot drinks and cold drinks/snacks, male, female, disabled toilets, entry door to departures.
3. First departure element is security (pax and bags dual function), departure gate beyond, (not seen), but judging by layout and size of building foot print should be large enough for 30 seats as well.
4. Arrival space could be partially seen through part glazed door and a podium could be seen.
5. Externally, to the side elevation, airside, two doors – one for arrivals and one for departures.

Car Parking, Surface Access and Public Transport

6. Single surface car park – dual public and staff use.
7. 60 spaces plus 3 disabled spaces.
8. Tariff – 0-30 minutes at 50p, up to 3 hours £3, All day, (per day), £5. Single coins only pay machine at car park.
9. Drop off zone – large enough for 2 or 3 cars.
10. Single entrance to car park, (to terminal), off entry road to RAF Valley adjacent to the controlled entrance to RAF station.
11. Single deck service bus every half hour – using the drop-off zone in car park, (destination/origin not recorded). The airport is on the route and not the terminus of the service. Frequency may be one hour in each direction. No drop-off or pick-up of passengers during visit. Other passengers on the bus.

Site Security

12. The car park and terminal building sit within a civilian enclave surrounded by ICAO height security fencing – of a type that does not have the angled barbed wire at top – vertical arrangement instead, (possibly to MOD standards).
13. Perimeter facing airfield could be seen through – so no added visual screening by the landside public of the military airside aerodrome. This affords good spectator views of the airfield and

of the entry/exit doors of the terminal facing the ramp. Some well-wishers using this view to meet or send off passengers.

Passenger Load

14. It was the Monday 7th July arrival from Cardiff at - STA 17:20 and STD 17:40 departure to Cardiff that was witnessed.
15. Departure load was 12 Pax – by appearance 7 business and 5 leisure passengers. No hold luggage, all cabin baggage, of which around 5 or 6 items were overnight bags, all others brief cases, hand bags etc.
16. Arrival load was 8 Pax – by appearance all leisure. No hold bags, all cabin baggage of which at least 6 items were overnight bags.
17. Most of the departing passengers and all of the arriving passengers were being dropped off or picked up. There was one car hire collection/or return, (not sure which).
18. When all departing passengers were in the building there were 12 cars in the car park, (some of these were staff). After all of the arriving passengers left the airport there were 7 cars left in the car park, not all of these were staff, (staff cars had passes attached to windscreens), so some cars had been left by passengers overnight, (suggesting that not all passengers on business are day return).

Witnessed Turn-Round Operation

19. Flight arrived early at 17:00, (ATA = STA – 20).
20. Aircraft taxied along taxiway closest to terminal and then entered stand facing out.
21. Airport staff totalled 6 on the ramp, (one other member off staff still in terminal). Total staff on duty was 7 airport staff plus one Europa Car Hire.
22. Larger bag items unloaded out of rear pax door first and set out on apron for pax to collect as they embarked down stairs and walked across ramp to entry door to arrivals.
23. All arriving passengers off aircraft and in to building by 17:05 – 5 minutes after arrival on stand.
24. As last arrival passengers entered building, some of airport staff that were initially out on the ramp were by now inside of building and the departure process had started with security door open and passengers being processed through to departure gate.
25. Regarding the reporting pattern of departing passengers the first passengers arrived at 16:30, STD – 70 minutes. By 16:50, STD – 50 minutes, 11 passengers had arrived. The final 12th passenger arrived at 17:15, STD – 25.
26. Boarding commenced at 17:25 and completed with all 12 passengers and baggage on board by 17:28. Door closed at 17:29.
27. Two airport staff on ramp remained with the aircraft. One responsible for the small GPU and the other as marshaller.
28. First engine start at 17:33 and second at 17:34.
29. Taxi out at 17:37, (STD – 3 minutes). Flight could probably have left even earlier – likely that slot/en-route clearance was required preventing an even earlier departure. Whilst RAF flying was busy it is unlikely that any slot issues for the runway were at VLY.

Ramp Equipment

30. One pair of wheel chocks, one small GPU, one other small piece of kit, (unknown), and two sets of small engineer stairs. All items remained out on the ramp after departure.

Road Journey Times from Anglesey Airport

31. The road journey time from Anglesey Airport was recorded by car leaving the airport at 18:00 and travelling along the A55 and M56 as far as Manchester Airport.
32. Travelling conditions were dry and clear for the entire journey apart for the stretch from Llanfairfechan, Junction 14 A55, to Abergele, Junction 23A A55, with heavy showers. The M56 was in particular clear of traffic. Speed was at or below the speed limits.
33. The following times, all from Anglesey Airport, in minutes are:
 - ➔ Britannia Bridge, (Gwynedd side), 20 minutes;
 - ➔ Llandudno Junction, J19 A55, 41 minutes;
 - ➔ Colwyn Bay, J22 A55, 43 minutes;
 - ➔ J31 on A55, past Rhyl and Prestatyn and close to Whitford, 60 minutes;
 - ➔ Queensferry Bridge on A55, 73 minutes;
 - ➔ Start of M56, 75 minutes;
 - ➔ Manchester Airport, J5 M56, 111 minutes.

Overall Impression of Anglesey Airport and Capacity Potential

34. The airport is very clean, tidy and does not look its 7 years age.
35. Staff are all very friendly, efficient and multi-task across all activities.
36. All passengers and well-wishers appeared very relaxed, content and satisfied with their airport experience.
37. The capacity of the terminal building should be able to comfortably handle around 45 passengers and could cope with a full load for a 50 seat aircraft.
38. The ramp area looks capable of accommodating a 50 seat aircraft. It was not possible to ascertain taxiway widths or whether the PCN values are high enough. These need checking along with the fire cover in terms of whether either would directly result in aircraft size restrictions.
39. Other witnessed flying activity was RAF hawk Trainers and a RAF helicopter.

Appendix E

Anglesey Airport Meeting Notes
(Redacted)

Appendix F

Comparison of Load Factors on Regional UK Routes

UK Regional Flight Load Factors, 2013

| Route | Seat Capacity | Passengers | Load Factor |
|--|---------------|------------|-------------|
| Aberdeen – Bristol | 54,578 | 34,915 | 64.0% |
| Aberdeen - Leeds/Bradford | 43,148 | 12,349 | 28.6% |
| Aberdeen - Manchester | 310,230 | 203,347 | 65.5% |
| Aberdeen - Wick | 42,398 | 13,860 | 32.7% |
| Belfast (BHD) - Aberdeen | 47,280 | 29,648 | 62.7% |
| Belfast (BHD) - Cardiff | 54,288 | 38,389 | 70.7% |
| Belfast (BHD) - Edinburgh | 203,140 | 128,092 | 63.1% |
| Belfast (BHD) - Glasgow | 204,672 | 119,280 | 58.3% |
| Belfast (BHD) - Inverness | 40,572 | 23,253 | 57.3% |
| Belfast (BHD) - Isle of Man | 35,454 | 22,294 | 62.9% |
| Belfast (BHD) - Leeds/Bradford | 170,976 | 130,904 | 76.6% |
| Belfast (BHD) - Manchester | 359,924 | 280,173 | 77.8% |
| Belfast (BHD) - Newcastle | 85,956 | 41,700 | 48.5% |
| Cardiff - Glasgow | 86,580 | 48,217 | 55.7% |
| Cardiff - Newcastle | 35,818 | 12,546 | 35.0% |
| Edinburgh - Bristol | 368,328 | 306,160 | 83.1% |
| Edinburgh - Cardiff | 128,312 | 77,315 | 60.3% |
| Edinburgh - Exeter | 51,012 | 36,523 | 71.6% |
| Edinburgh - Isle of Man | 7,966 | 4,152 | 52.1% |
| Edinburgh - Wick | 20,710 | 11,362 | 54.9% |
| Glasgow - Bristol | 328,752 | 257,538 | 78.3% |
| Glasgow - Exeter | 39,468 | 23,818 | 60.3% |
| Glasgow - Isle of Man | 7,782 | 4,011 | 51.5% |
| Glasgow - Leeds/Bradford | 29,374 | 9,992 | 34.0% |
| Manchester - Edinburgh | 235,180 | 118,056 | 50.2% |
| Manchester - Exeter | 128,624 | 83,645 | 65.0% |
| Manchester - Glasgow | 111,700 | 51,419 | 46.0% |
| Manchester - Inverness | 102,780 | 55,433 | 53.9% |
| Manchester - Isle of Man | 212,604 | 131,007 | 61.6% |
| Newcastle - Aberdeen | 85,882 | 41,275 | 48.1% |
| Newcastle - Bristol | 247,608 | 174,302 | 70.4% |
| Newcastle - Exeter | 49,140 | 29,595 | 60.2% |
| Newcastle - Isle of Man | 7,904 | 4,795 | 60.7% |
| Total | 3,938,140 | 2,559,365 | |
| Average Load Factor | | | 65.0% |
| Source: CAA Statistics, OAG, York Aviation | | | |

Appendix G

Operating Cost Details
(Redacted)