Comparison of Approaches for Supporting, Protecting & Encouraging Remote Air Services

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EXECUTIVE SUMMARY

Public subsidies in support of scheduled air services to remote communities are established in a number of jurisdictions worldwide - of particular interest to this research enquiry are the air service subsidy programs operated in the US, the EU and Australia.

The definitions pertaining to the provision of public subsidies for air services to and within remote regions vary considerably; and understandably due to the diversity of geographic, demographic, economic and political circumstances conditioning such programs as determined by sponsor governments or supranational authorities.

The main instrument of the US government to maintain adequate levels of air transport to remote areas has been the Essential Air Services (EAS) program administered by the US Department of Transportation. The EAS was established in the run-up to the deregulation of air transport in the US (1978). The overall EAS program is not inconsequential – the FY2014 program budget was $249 million. EAS funding supports commuter air services to subsidies to commuter airlines serving some 163 rural communities in the US : 120 in the continental states and 43 in Alaska.

The EAS program continues to attract criticism for its perceived inefficiencies. The US Government Accountability Office analyzed the program suggesting that it should target subsidized services to more remote communities; better match capacity with community use; consolidate subsidized service provided to multiple communities into service at regional airports; and, changing carrier subsidies to local grants.

Across the European Union (EU) and the European Economic Area, the established mechanism for the public support of air service to remote regions is the Public Service Obligation (PSO) scheme; also applied to road, rail and sea modes. The program was introduced as a flanking measure to the liberalization of air transport within the EU in 1992.

At year-end 2014, there were roughly 300 aviation PSOs in effect within the EU. Due to the uncoordinated nature of the PSO program complete fiscal data for PSO program costs is not available. Piecemeal individual country data was uncovered (ie. EUR2.8 million spent in Finland (2014) ranging to an estimate of EUR350 million in Spain (2012). Indeed, the numbers can be substantive.

The inconsistent and the uncoordinated application of the PSO instrument across the EU has led to imbalances in the level and provision of air services to small or remote communities – a feature which stands as one of the major points of criticism for the overall program.

In many cases the line between PSO and non-PSO designation appears to be arbitrary. Such decisions appear to rest on whether a government's aviation policy is inherently interventionist or market-oriented. As the 20th anniversary of the PSO platform approaches, it is clear to many observers that there remains considerable scope for reform within the EU's air services public subsidy regime.

The Australian Government provides targeted support for aerodrome infrastructure and in providing subsidies for air services to remote areas where they are not commercially viable. This funding is provided through the Regional Aviation Access Program (RAAP).

In FY2014-15, the RASS Scheme provided some 363 communities in remote and isolated areas of Australia with improved access through the subsidy of a regular air transport service. This includes 257 directly serviced locations and a further 106 neighbouring communities

that receive mail through RASS ports. The 257 directly serviced locations include 86 indigenous communities. Total RASS program funding for FY2014 was A$18.2 million.

The RAAP program does not appear to attract the same level of sharp criticism as do the US and EU programs – likely in light of the considerably smaller level of program funding and perhaps in view of the well-defined subsidy criteria and transparency inherent in the Australian programs.

The salient features of the RAAP program germane to this study are the investments made in airport infrastructure and in providing relief to aeromedical flights for air navigation charges.

A literature review was conducted with regard to current public subsidies for air transport in Russia. Funding programs were established and in place after the collapse of the USSR in 1991 through the worldwide economic turmoil commencing in 2007. It is apparent that many subsidy programs have been severely curtailed in light of the economic challenges facing Russia today.

The following observations pertaining to public subsidy schemes in support of scheduled air services to remote communities in comparable jurisdictions to Canada were gained by the consultants in the preparation of this report :

- any public subsidy program will require substantive administration responsibilities to government, requiring qualified staff within the commercially sensitive realm of air services planning and marketing that even well established airlines find challenging to staff. Crucial to the overall success of a new subsidy program will be a carefully constructed communications strategy;

- a clear set of criteria as to what constitutes remoteness and lifeline air services, as well as the threshold numbers which will sustain open competition are necessary;

- subsidized services need to be aligned with market needs and the responsiveness to demand created by the program;

- the subsidy of services need to be considered in a co-ordinated approach with regard to regional policy objectives alongside other funding mechanisms whose goal is the social and economic development of the communities at play;

- subsidized air fare pricing requires a deft hand at setting minimum and maximum fares, peak and off-peak pricing, discounts for residents and/or special needs travelers – essentially every factor affecting the pricing of the service;

- in light of the high fixed costs and low demand - aircraft operating costs (especially fuel which itself may need to be positioned by air), airport and air navigation costs can crucially affect the success of any public subsidy scheme – accurately determining the start-up and on-going cost of operations will remain key performance indicators upon which adequate flight frequency and accurate fare pricing will depend – no small challenge when contracts are often signed over a duration of several year or more;

- the design of an effective contract is essential which as touched on in the previous point, must take into account a multiplicity of factors affecting the overall service. To mention a few other key variables : duration, minimum level of service, fare levels, flight frequencies, risk sharing, flexibility, air carrier initiatives to improve the

efficiency of their services, demanding weather provisions, etc; - again, not any easy gambit; and,

- getting the tender process right need be closely examined, ensuring : transparency, adequate response timelines, recognizing contract constraints, etc. will be necessary to ensure that a reasonable level of attractiveness supports competition between as many respondent carriers as possible.

Unequivocally, civil aviation has and continues to play an encompassing role in the development of the Canadian North. Virtually every commercial use of fixed or rotary wing aircraft has been played out at some point within the vastness of the region.

Three incumbent major players serve the North with sizeable regional networks radiating from each of the three Territorial capitals of Whitehorse, Yellowknife and Iqaluit.

The reality of 10 years of airline deregulation in Canada's North are the foremost challenges currently facing Canada's major northern air carriers. The larger southern based airlines are competing aggressively on major trunk routes to southern gateway airports with no obligation to provide regional or local service beyond northern gateways.

When one reviews the population base of the North's gateway catchment areas, the competition between the number of carriers, the overall flight frequencies and the number of roundtrip seats available on north-south trunk routes to southern gateways is unexpectedly large, especially when comparing these factors against secondary centres in the south. Stunningly, a Yellowknife-originating passenger has the choice of 5 domestic carriers providing direct service to 3 southern gateways – this from an urban base of 21,000 residents, and only 44,000 in the entire Territory.

With respect to current load factors and yields - it is apparent that an over capacity situation is currently in play in the Whitehorse and Yellowknife North-South trunk route markets.

In canvassing Northern operators on the viability of air service subsidies as a sound policy option –executives were of the opinion : "No public subsidies for air transport in the North". Each carrier had subtle variations encasing a consistent theme : "public subsidy schemes for air transport would be an inefficient use of public funds in the North, such programs are typically expensive and contain too much latitude for abuse, misuse and often serve political ambitions . . . we do not believe that such subsidies make for a good policy option".

Each carrier called for a "leveling of the playing field" in accessing public servant traffic alongside a more sincere effort from the two southern majors to work with northern carriers at interline, code-sharing arrangements or other joint marketing initiatives aimed at reducing overall capacity and increasing yields on North – South trunk routes.

Each carrier discussed a range of priorities needed to ensure a safe, efficient operating environment in Canada's North. All call for the need to pave key northern airports, to increase the quality and scope of landing and approach aids, to improve drainage and basic infrastructure at the smaller northern airports. Each carrier noted that such investments would make a considerable improvement to safety, and would drive down costs.

All of the northern operators expressed frustration with the PWGSC booking platform, arguing that Global Distribution System biases do not display their inventory and prices on the federal government Online Booking Tool for Government of Canada travelers.

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1.0 About this study

Public subsidies in support of scheduled air services to remote communities are established in a number of jurisdictions worldwide - of particular interest to this research enquiry are the air service subsidy programs operated in the US, the European Union (EU) and Australia.

Over the course of this research initiative it has become apparent that the definitions pertaining to the provision of public subsidies for air services to and within remote regions vary considerably; and understandably due to the diversity of geographic, demographic, economic and political circumstances conditioning such programs as determined by sponsor governments or supranational authorities. A review of the literature shows that there is considerable variation to the extent, manner and policy goals in which governments have adopted such subsidies.

European observations provided by Professor Brathen of the Transport Research Group at Molde University College in Norway lend support to the above premise : "the criteria for giving public support allows for quite wide interpretation of the terms 'remote regions' and 'lifeline services'. In some jurisdictions, subsidies are given to routes with quite heavy traffic where the potential for ordinary commercial services could have been offered. In other subsidy programs, air services role as lifeline transport can be questioned because there are modes of surface transport that probably can serve these lifeline needs".

Brathen's comments underscore the wide-ranging debate and policy commentary directed at the utility and requirement for air services subsidies.

This report will review the current approaches of the US, the EU and Australia for protecting, supporting and encouraging remote air services – the policy objective of which is to promote the mobility of the population in remote or peripheral areas to connect with airport(s) considered important for the region's economic or social development. Although outside of the scope of the RFP for this study, the consultants presumed that a review of the situation in Russia could be of value to the overall study – in practice this has not been the case given the major disruption to state-sponsored regional air services in the post-Soviet environment; nonetheless a short review of the current Russia situation was attempted.

Of parallel interest are the challenges facing Canada's major northern air carriers from larger southern based airlines competing, as some observes note, aggressively on major trunk routes with no obligation to provide regional or local service beyond northern gateways. Northern operators were canvassed for their viewpoints on whether or not air service subsidies in the Canadian North portray a sound policy option and/or what alternatives would they suggest.

2.0 AIR TRANSPORT POLICIES AND SUBSIDY SCHEMES PERTAINING TO REMOTE REGIONS

2.1 USA – The EAS Regime

The main instrument of the US government to maintain adequate levels of air transport to remote areas has been the Essential Air Services (EAS) program administered by the US Department of Transportation. During the era of government regulation of air services, air carriers received operating subsidies and traffic rights in long-haul and/or profitable routes in exchange for providing – mostly unprofitable, air service in connecting small or remote communities to the national air transportation network.

The EAS was established in the run-up to the deregulation of air transport in the US (1978) in an effort to guarantee that small communities which were served by certificated air carriers prior to deregulation would maintain a minimal level of scheduled air service. The original program was initially effective for a 10 year period, the US Congress prolonged it for an additional 10 years; and, finally the program was made permanent in 1998. Since that time Congress has amended the eligibility criteria on several occasions to address increasing annual appropriations and decreasing program effectiveness. EAS funding is provided by the Federal Aviation Authority revenues derived from a wide range of aviation user fees.

Under the program, the EAS provides subsidies to carriers on specific routes. The airlines are selected through a competitive tendering process, where the airlines submit proposals that address minimum requirements defined by the EAS, such as number of daily flights, weekend frequencies, size of the connecting hub, aircraft equipment, fare schedule and the maximum number of intermediate stops. EAS contract durations are usually set at two years. Typically carriers are paid in arrears on a per-flight-completed basis.

The governing regulatory statutes list four carrier selection criteria: service reliability, contractual and marketing arrangements with a larger carrier at the hub, interline arrangements with a larger carrier at the hub, and community views. The actual subsidy is not one of the evaluation criteria, but it may be considered in the process. The communities seeking EAS relief are asked at the end of the tender process which carrier and option they prefer.

The actual subsidy is not one of the evaluation criteria, but it may be considered in the process

For the first 12 years after deregulation the sole criterion for EAS eligibility was whether the community had received scheduled air service on October 24, 1978, the date the Airline Deregulation Act was signed into law. In 1990, Congress made some minor reforms by establishing both a mileage and a subsidy-per-passenger standard. To be eligible for inclusion in the EAS program, a community currently needs to be located at least 70 miles from the nearest hub.

A community cannot receive more than US$200 per passenger per flight segment, unless it is located at least 210 highway miles from the nearest alternative transportation centre. The Airport and Airway Extension Act, Part IV, which was signed in 2011, contains a provision which prohibits EAS to communities whose annual passenger subsidies are greater than $1,000 per passenger, regardless of their distance from the nearest hub airport.

The overall EAS program is not inconsequential – the FY2014 program budget was $249 million.

The roundtrip flight frequency of EAS routes are generally between 2x and 4x daily on weekdays - weekend services may vary, often with 19-seat or smaller aircraft in service with a hub airport.

The overall EAS program is not inconsequential – the FY2014 program budget was $249 million. Data for FY2014 depicts EAS funding subsidies to commuter airlines serving some

163 rural communities across the US that otherwise would not have received scheduled air service. Per passenger subsidies can be substantive (ie. Muscle Shoals AL – Atlanta; $655 per pax (3900 carried in total); Macon GA – Atlanta, $805 per pax (4000); Hagerstown MD – Washington, Dulles, $738 per pax (2400)). Of the 43 communities in Alaska receiving a total of $15.23 million in EAS funding, 5 were in excess of $1.5 million per community – no Alaska traffic figures were available (See Appendix A).

The consultants found it curious that the program is far more prevalent in the continental US where some 120 communities benefit from roughly $225 million in public air carrier subsidies. It is also apparent that the program has not moved with the industry since its inception (ie. the lack of connectivity with low-cost carriers who are increasingly dominating medium and large-size hubs – there by adversely affecting traffic levels at small airports within the same catchment area). Further, the US population continues to migrate to urban centres, yet EAS funding continues to grow at a rate beyond simple inflation.

Figure 1 depicts a map of the continental US which shows 2014 EAS funding activity by US state at the county level, where fewer than 15 states do not participate in the program.

Figure 1.

(Source - http://en.wikipedia.org/wiki/Essential_Air_Service)

2.1.1 Small Community Air Service Development Program

In addition to EAS, there is a smaller US government program of relevance for air transport to communities in remote regions - the Small Community Air Service Development Program (SCASD), which is designed to assist such communities at enhancing their air service. The program allows flexible use of funds for traffic studies, financial incentives to carriers for a maximum of three years, marketing expenses etc.

Under the FAA Modernization and Reform Act of 2012, the DOT receives up to $14 million per annum to carry out SCASD grants. Overall, the SCASD has broader eligibility criteria than EAS. The applicant identifies deficiencies in the status quo and proposes solutions to remedy or improve the situation.

In 2014 the US Department of Transportation awarded 16 grants under the SCASDP scheme, benefitting communities in 14 US states to assist in the implementation of the air service initiatives proposed in their grant applications.

2.2 Observations on the EAS policy

The EAS program continues to attract criticism for its perceived inefficiencies – much of the special interest and media commentary would appear to be driven by those defending low government expenditures and free markets, with many calling for termination of the program.

… the Regional Airline Association – representing regional air carriers throughout the US, strongly supports EAS. In 2013, the RAA called for an additional $150 million annually to be added to the program.

The other side of the debate consists of the EAS beneficiaries' presenting their own findings and recommendations in an effort to set lighter eligibility criteria, increased program funding, or both. By example, 36 Congress Representatives, mostly from rural US states enjoying EAS benefits, introduced the bipartisan Rural Aviation Improvement Act (2007) which aimed to increase funding, reduce criteria eligibility and to relieve financial burdens on EAS communities.

Not surprisingly, the Regional Airline Association – representing regional air carriers throughout the US, strongly supports EAS. In 2013, the RAA called for an additional $150 million annually to be added to the program.

The US Government Accountability Office (GAO) has also analyzed the program suggesting that it should target subsidized services to more remote communities; better match capacity with community use; consolidate subsidized service provided to multiple communities into service at regional airports; and, changing carrier subsidies to local grants (GAO 2002, 2006, 2007).

In simple terms – the EAS is an example of a concentrated benefits/diffused costs program where the debate blusters as to whether the amount of subsidy exceeds the sum of the benefits (ie. the classic transfer of welfare argument). If one looks at the population of EAS communities, it likely constitutes something less than 1 percent of the entire US population. As such, it is apparent that the great majority of program funding is financed by constituents who do not live in EAS communities, who likely have never taken an EAS flight, if they ever will.

In addition to the obvious equity issue, viewpoints from supporters and opponents of the program have ensured that the EAS program has remained controversial since its inception. The main arguments revolve around ensuring accessibility to small and remote communities and the economic and social benefits thereof, with opponents emphasizing cross-subsidization, federal intervention and unnecessary government expenditures.

3.0 EUROPEAN UNION MEMBER/EEA STATES - THE PSO REGIME

To December 31st, 2014 there were roughly 300 aviation PSOs in effect within the EU.

Across the European Union as well as in Norway, Iceland and Liechtenstein (as members of the European Economic Area), the established mechanism for the public support of air service to remote regions is the Public Service Obligation (PSO) scheme which also apply to road, rail and sea modes. The program was introduced as a flanking measure to the liberalization of air transport within the EU in 1992, for reasons not dissimilar to those underlying the rationale for establishing the US EAS policy.

To December 31st, 2014 there were roughly 300 aviation PSOs in effect within the EU. In light of the uncoordinated nature of the PSO program within the EU, complete fiscal data for PSO program costs are not available. Piecemeal individual country data is also limited; however several sets of annual PSO cost data was uncovered (ie. EUR2.8 million spent in

Finland (2014); EUR46 million spent in Norway (2002); and, an estimate of EUR350 million in Spain (2012). Indeed, the numbers can be substantive.

PSOs can be awarded, administered and subsidized by either regional or national

Individual member states, through the relevant central government department have the legal authority to impose PSOs. PSOs can be awarded, administered and subsidized by either regional or national governments, either directly or through associated agencies.

Within Finland, Sweden, Greece and Portugal air transport PSOs are administered by the national governments; within France, Italy, Spain and Germany PSOs are administered by regional authorities. In general, PSOs are confined to domestic services – representing over 90 percent of all current PSOs; however, cross-border PSOs can be established – by example, Derry in Northern Ireland to Dublin.

The establishment process involves initially issuing an invitation to tender which is published in the Official Journal of the EU. The tender usually stipulates minimum service levels and maximum fares that contracted air carriers need to satisfy over the duration of the contract. There are two tender rounds – the initial tender asks for carriers willing to offer a subsidy-free operation; a second tender invites carriers to bid on the basis of receiving a subsidy. The awarding authority then makes a decision taking into account the level of subvention demanded, levels of service provided and other relevant considerations. Typically air transport PSO contracts in EU member states are for four years. Critics of the program argue that the tender processes are not transparent enough.

In some countries (eg. Norway, Scotland) the authorities typically set the maximum PSO fare level on routes; others (eg. France) require applicants to state their fares as part of the tender. Sweden has a system with maximum average fares. German PSOs linking eastern Germany centres with Frankfurt and Munich are protected with PSOs. Italian and Portuguese PSOs linking island possessions with the mainland are required to offer special discounts to island residents. Other PSOs dictate that disabled, students, persons under 25 years of age or over 70 are eligible to receive discounted fares.

Further PSO facts :

- in Portugal, PSOs account for 40% of total domestic seating. France, Norway and Scotland feature similar levels;
- Germany, Iceland and Sweden report a "relatively insignificant" number of domestic seats under PSO arrangements;
- flights between the island possessions of Scotland, Spain, Portugal, France, Italy and Greece and the domestic mainland are dominated by PSOs;
- many PSO routes restrict competition by frequency, aircraft, timetable and/or price regulation;
- PSO route traffic can be substantial (ie. Lisbon – Funchal over 650,000 p.a. pax);
- PSO aircraft types can range from 150-seat B737NGs to small turboprops of 8 seats;
- PSO load factors vary considerably, with a number noted in 30 ~ 40% p.a. range;

Idiosyncrasies inherent in the PSO process draw criticism on a number of points (ie. potential barriers to entry arise as a result of there being only one month permitted to lapse between the notification of tender and the submission of bids). New entrant carriers can find this time frame challenging in securing suitable aircraft, not to mention licensing and crews to operate such a route. It is thus not surprising that most PSOs are awarded to long-established carriers.

The inconsistent and the uncoordinated application of the PSO instrument across the EU has led to imbalances in the level and provision of air services to small communities – a feature which stands as one of the major points of criticism for the overall program.

The consultants have chosen to review the present PSO state of affairs of the following EU Nordic states which we felt were of particular relevance to this study :

The inconsistent and the uncoordinated application of the PSO instrument across the EU has led to imbalances in the level and provision of air services to small communities

3.1 NORWAY

The awkward physical geography of Norway where many communities are located in remote and/or difficult to access via surface means has led the country to aggressive adopt the air transport mode. Norway currently has the largest number of PSO routes (61) the EU, but the share of domestic seats offered under the PSO scheme is relatively low at 10%, compared to Portugal (40%) and Ireland (23%).

A regional airport service was introduced in Norway in the 1960s, with 30 airports located mainly in areas with long distances to large cities and with too little traffic to support

commercial flights. The airports, which typically operate with roughly 800 ~ 1000 meter runways, are run by Avinor, a state-owned company that operates 46 airports - most of the civil airports in Norway; some 25 airports are considered STOL airfields, where 20 airports are capable of handling jet equipment. As such, Norway features a high percentage of what are referred to locally as 'chained passengers' who require onward connections from STOL airfields (a 2010 University of Oslo study identified 45% of Norway's air traffic to be 'chained').

PSO contracts with the Norwegian Ministry of Transport and Communications have been in effect since the EU introduced the program in 1997. This replaced a system of licenses, under which carriers accepted an obligation to serve one or more routes in return for a monopoly on the given sector(s). Under the former regime cross subsidization of routes was achieved through the assignment of sets of "profitable" and "less profitable" routes to individual carriers.

By far, the largest contractor is Widerøe - the largest regional airline in the Nordic countries, operating a sizeable fleet of STOL aircraft centered on the Dash 8. Danish Air Transport, Lufttransport and Kato Airline have also won bids. Typical PSO flights operate from one or more regional airports to the larger Norwegian hubs at Oslo, Bergen, Trondheim, Bodø, Tromsø and Kirkenes. The service to the Værøy Heliport is operated by helicopter. A total of 1.22 million passengers passed through Norway's regional airports in 2012.

According to the ICAO case study "Operating Subsidized Regional Routes in a Liberalized Market as Exemplified by the Norwegian Experience" (2003), the introduction of PSO routes and invitation to tender in 1997 was considered "a political success and ensured the same historical pattern of air services at a considerably lower governmental cost".

Despite the high number of PSO routes in Norway, according to Brathen, competition for air transport PSOs in Norway has been rather weak over the years, commenting "the counties and the local communities are demanding the best possible quality of PSO services, but the responsibility for providing the funds rests with the Ministry. Hence, one cannot exclude the possibility that the local and regional interest groups have gained from this asymmetric situation by being in position of advocating demand for PSO services without being responsible for the funding".

The Norwegian authorities generally set the maximum PSO fare level on the routes which can vary significantly. It is useful to note that PSOs in Norway do not cover through fares –

and as noted previously, some 45% of all Norwegian air passengers connect to non-PSO based fares. Combined with improved surface transport and better access to larger airports through low-fare carriers, there has been a pronounced leakage of passengers from smaller Norwegian airports to larger regional hubs.

In 2006 the Ministry of Transport and Communications commissioned a study to examine the effects of a fare reduction on the Norwegian PSO routes. The study, which used a comprehensive model covering the entire transportation network including roads, rail and sea transport, suggested that "even if the subsidy level may need a significant increase to compensate the airlines for revenue losses, the overall positive economic effects seem to justify this. Furthermore, the economic effects of the fare reduction are estimated to be most beneficial for people living in the remote areas, like western and northern Norway," according to Brathen.

Curiously, the competition authorities in Norway banned domestic frequent flyer programs in early 2000 - it is not known if this action was linked to the country's PSO program.

3.2 SWEDEN

As a member of the EU, Sweden adheres to the PSO regime with regard to subsidies for air transport to remote regions. Under the national regulatory framework, regional and local authorities are authorized to award directed aid to an individual business if there is an exceptional reason to do so.

To December 2014, Sweden had 10 designated PSO routes. As in other EU countries, PSO contracts are for four years but can be terminated earlier by Trafikverket, the Swedish Transport Administration. The Authority did so in March 2015 when it withdrew the PSO licenses for three routes from Estonia's Avies; the carrier had suspended service on a due to technical problems. Besides demonstrating the possibility of contracts being, this case illustrates the possibility of carriers from other EU member states operating PSO contracts outside their home country.

Within Sweden the level of subsidy varies by sector, with considerable differences. According to a 2010 report, compensation per passenger-km in 2007 varied from 3 eurocents on the routes from Stockholm to Arvidsjaur, Gällivare and Hemavan, to as much as EUR1.75 between Pajala and Luleå.

3.3 FINLAND

Notwithstanding the fact that it is the most sparsely populated country in the EU, Finland currently has only one active domestic PSO air route, linking Helsinki with Savonlinna. Originally the service continued from Savonlinna to Varkaus, but that sector was discontinued in 2013 and only the Helsinki-Savonlinna portion was put up for tender in the following year. The 2014 state budget earmarked EUR1.4 million for this PSO, with the local governments due to contribute the same amount.

There is one international PSO route that links Mariehamn airport in the Aland Islands (an autonomous, Swedish speaking region in the Baltic Sea) with Stockholm in Sweden.

Under the Finnish government's 20212 Air Transport Strategy 2015-2030, "the provision of domestic air services must continue to remain primarily a commercial business operated under market conditions, without being subsidized from public funds. Contracted air transport services shall only be provided if adequate service standards cannot be maintained by other public transport links."

Finland currently has 24 airports that are operated by Finavia, a fully state-owned corporation; in addition there is a foundation-operated airport in Seinäjoki and a municipal airport in Mikkeli. Helsinki Airport is the only profitable airport in the Finavia network, where revenue from Helsinki is used to finance the overall network.

Airport operations and investment are financed almost exclusively from charges collected from airport users and other commercial revenue streams. Airport charges are determined by a uniform tariff system based on the standard of services provided. According to the Air Transport Strategy 2015 -2030 brief, these charges have been "very reasonable by European standards". The authors point out that Helsinki Airport has consistently ranked among the most inexpensive of the main EU airports.

3.4 DENMARK

Denmark has two territories under its jurisdiction which are classified as remote regions - Greenland and the Faroe Islands. The former originally joined the EU but withdrew in 1985 following a public referendum. Greenland has since been listed as one of the Overseas

Countries and Territories of the EU, due to its historical links with Denmark. As a result, Greenland has some integration with the EU's internal market via association agreements.

3.4.1 GREENLAND

Due to high operating costs, domestic flights in Greenland require large public subsidies. Tenders for service agreements are handled by the Greenland Home Rule Government. The territory has 18 airstrips - particularly noteworthy is the fact that 14 of these airfields have paved runways. Air Greenland is the sole domestic operator; ownership of the carrier is 37.5% each by the Home Rule Government and the SAS Air Group, and 25% by the Danish government. The carrier operates an A330 aircraft for its Europe services and a range of STOL aircraft including a DHC-7 and six DHC-8s.

Besides international flights to Copenhagen, Reykjavik and Iqaluit, Air Greenland operates all of the civilian airports. The carrier operates a fleet of some 20 helicopters and provides rotary-wing flights to most Greenland settlements, under PSOs subsidized and coordinated by the Ministry of Housing, Infrastructure and Transport.

Greenland has 18 airstrips - 14 of these airfields have paved runways.

The Ministry oversees the development of the transport industry throughout Greenland and controls Mittarfeqarfiit, the national airport authority. This agency co-ordinates aviation services, maritime connections and tourism development in addition to overseeing airport taxations and pricing policies.

According to Statistics Greenland, the average ticket price for district flights in Southern Greenland in 2009 was 3,528 Danish kroner (US$496.05), as opposed to a real cost of roughly 5x more at DK16,439. Ticket prices on helicopter flights ranged from 625 kroner to 784 kroner, whereas real costs ranged from DK1,147 to 7,029.

3.4.2 FAROE ISLANDS

Air transport and marine services between Denmark and the Faroe islands are largely subsidized by the PSO scheme. In terms of aviation services, Atlantic Airways (67% owned by the Faroes Home Rule government), operates a mix of scheduled flights and charter services to and from primarily Copenhagen and the Faroe Islands. The carrier also operates flights to a number of sunspot destinations in addition to a domestic helicopter service.

Atlantic Airways has a four-year contract with the Faroes Ministry of Fishery and the Ministry of Industry to provide helicopter SAR coverage 24 hours a day, as well as domestic transport to the most remote islands. This contract expires at the end of 2015. The SAR service was called out on 44 occasions during 2013. The company has provided domestic helicopter services in the Faroe Islands since 1994 and SAR operations since 2001.

Domestic aviation in Denmark has been fully liberalized since 1993 and operates on commercial terms. Under Danish aviation law subsidies for routes are allowed although they are to be provided by local airports or local government or parastatial authorities. The Danish state does not offer federal subsidies to air routes directly, but in practice offers financial support to certain airports instead.

At December 2014, there were no air services in Denmark under a PSO scheme**;** as an aside, there were no PSO air service agreements in place in Iceland.

3.5 Observations on the PSO policy

It is apparent that there are major inconsistencies in the approach and commitment to the public subsidy of remote air services provision across the EU which may undermine the broader policy initiatives designed to enhance mobility and accessibility, and those economic and social benefits which accompany such program goals.

there are major inconsistencies in the approach and commitment to the public subsidy of remote air services provision across the EU

The earlier cited Derry Northern Ireland – Dublin service reflects the widely differing geographical, social and economic conditions prevailing between countries where strong local political pressures can result in subjective, politically motivated decision-making.

In many cases the line between PSO and non-PSO designation appears to be arbitrary, and perhaps the product of how successful lobby groups have influenced national policy. Such decisions seem to rest on whether a government's aviation policy is inherently interventionist or market-oriented. Clearly, the EU does not have a homogenous approach to the regulation of thin routes.

the line between PSO and non-PSO designation appears to be arbitrary . . . such decisions seem to rest on whether a government's aviation policy is inherently interventionist or market-oriented

There appears to be no clear demarcation lines and very different policy decisions by national EU governments as to which routes deserve PSO regulatory protection and hence a subsidy, and those that do not. As the 20th anniversary of the PSO platform approaches, it is clear to many observers that there remains considerable scope for reform within the EU's air services public subsidy regime.

4. AUSTRALIA – The RAAP Regime

The Australian Government provides targeted support for aerodrome infrastructure and in providing subsidies for air services to remote areas where they are not commercially viable. This funding is provided through the Regional Aviation Access Program (RAAP). The scheme offers funding assistance for access and safety upgrades to remote aerodromes as well as subsidized air services. RAAP is funded by the Australian Government and administered by the Department of Infrastructure and Regional Development.

RAAP has five funding components: the Remote Air Services Subsidy (RASS) Scheme; the Remote Aviation Infrastructure Fund (RAIF); the Remote Airstrip Upgrade (RAU) Program; the Remote Aerodrome Safety Program (RASP); and the Remote Aerodrome Inspection (RAI) Program (Departmental funding).

The Remote Air Services Subsidy (RASS) Scheme subsidizes a regular weekly air transport service for the carriage of passengers and goods to communities in remote and isolated areas of Australia. Mail is carried on these flights under a separate contract with Australia Post. A RASS community range from a small family-run cattle station through to an Indigenous hinterland community with a population ranging from 6 ~ 200 people. To be eligible for RASS, a community must have a demonstrated need for a weekly service and be sufficiently remote in terms of surface travel to a population centre or neighbouring community receiving a weekly transport service. A community can apply for RAAS assistance at any time.

In FY2014-15, the RASS Scheme provided some 363 communities in remote and isolated areas of Australia with improved access through the subsidy of a regular air transport service. This includes 257 directly serviced locations and a further 106 neighbouring communities

that receive mail through RASS ports. The 257 directly serviced locations include 86 Indigenous communities.

To late 2014 there were six air operators providing air transport services to 257 remote communities throughout Queensland, Northern Territory, South Australia, Western Australia and Tasmania.

Air operators are contracted with the Australian Government for a fixed term and are selected in accordance with the Commonwealth Procurement Rules. The RASS subsidy is paid directly to the air operator. Air operators providing air services under the RASS scheme are required to service specified RASS communities.

In addition, since September of 2014, carriers can apply for funding through the Airservices Australia Enroute Charges Payment Scheme. This was launched to offer a subsidy to air operators providing aeromedical services to regional and remote locations through a reimbursement of enroute air navigation charges levied by Airservices Australia. As of 15 September 2014, airlines operating commercial passenger services to regional and remote locations can also apply for assistance under the scheme. Since September 2014, six airlines, operating commercial passenger services to regional and remote locations, have had routes assessed as eligible. Program funding for the reimbursement of enroute air charges is in the A$1 million p.a. arena.

Total current and projected RASS funding is as follows :

FY 2013-14	A$18.834
FY 2014-15	A$18.196
FY 2015-16	*A$12.325*
FY 2016-17	*A$12.609*
FY 2017-18	*A$12.874*

(in millions)

4.1 New Directions for Australian Aviation Subsidies

In July 2013 the Department of Transport of Western Australia (WA) commenced a review of regulated air routes in its jurisdiction with the objective to propose a new approach for air route regulation beyond February 2016, when the current regulatory arrangements between the state government and airlines cease. In a position paper released in 2014, the state government's declared position was to protect vulnerable air services for remote and

regional towns within the state. Further the government favoured "to take a light-handed approach to air route regulation in the future. Less regulation of air routes, where feasible, increases the opportunity for competition, reduced airfares, greater diversity in air services, and more choice for travelers and reduced administrative 'red tape' costs."

The proposed regulatory approach beyond February 2016 strikes a balance between regulation and deregulation of subsidized routes. Deregulation of certain air routes in WA deemed capable of sustaining competition in the future will maximize the potential for industry and economic growth. The State Government's starting position is not to regulate air routes where feasible.

The position paper proposed the full deregulation of one route, reduced regulation on two sectors and flexible regulation on one route, while two routes should remain regulated. In addition, the state government proposed the closure of one subsidized airport and "in the interest of maintaining public air services, continue to regulate charger operations over unregulated and regulated air routes from 2014".

4.2 Observations on the RAAP policy

The RAAP program does not appear to attract the same level of sharp criticism as do the US and EU programs – likely in light of the considerably smaller level of program funding and perhaps in view of the well-defined subsidy criteria and transparency inherent in the Australian programs. The Flying Doctor program is a beneficiary of RAAP funding, and conceivably because of the strong positive public perception for the efforts of this group – criticism for the entire program may be somewhat muted.

It is apparent that the Australian appetite for public expenditures in support of aviation has lessen

It is also apparent that the Australian appetite for public expenditures in support of aviation has lessen, as noted in the roughly 35% reduction to program funding evidenced in the FY2014-15 federal government budget.

the salient features of the RAAP program are the investments made in airport infrastructure and in providing relief to aeromedical flights for air navigation charges.

In the context of this study, the salient features of the RAAP program are the investments made in airport infrastructure and in providing relief to aeromedical flights for air navigation charges. Perhaps either or both of these areas of Australian public funding for aviation could

be further examined as to the potential value of introducing similar programs in the Canadian Northlands.

5.0 RUSSIA – Current Subsidy Practices

The consultants undertook a literature review regarding current public subsidies for air transport in Russia. Indeed funding programs were established and in place after the collapse of the USSR in 1991 through the worldwide economic turmoil commencing in 2007. Challenges in retrieving English translations of post-Soviet and Russian academic reviews and industry journals limited our efforts. It is also apparent that many funding programs have been severely curtailed in light of the economic challenges facing Russia today.

As such, we provide this short overview of our Russia research efforts :

Domestic air transport in Russia was severely curtailed in the wake of the collapse of the Soviet Union. According to a 2014 study, official statistics show a passenger volume of 56.9 million people in 2010, which is substantially lower than the 62 million domestic passenger throughput in 1975. In terms of international passenger volumes have climbed from 3.6 million in 1991 to 27.7 million in 2010.

The number of routes served in 2012 within Russian territory was 1,337, down from just under 5,000 in 1990. Over the same period the number of Russian airports receiving scheduled air services dropped from 1,302 to 315.

"In the course of market reforms in Russia during the past 20 years, the national airlines that suffered the most were those offering domestic flights and of those, the local (regional) airlines," the authors found.

The study points to economic reasons as a major factor for the decline in regional passenger numbers. In 2012 the average cost of a roundtrip flight was 23,000 rubles (US$730 at 2014 exchange rates), which the study reported was comparable to the monthly income of the average resident in many remote areas.

At the same time, operators have faced a need to renew their fleets, with much of the regional fleet consisting of outdated Soviet aircraft, such as the Antonov An-24 and An-26-100 turboprops (90 and 26 units respectively), Yakovlev Yak-40 and Yak-42 tri-jets (55 and

59), and Tupolev Tu-134 twin jet (60). Exacerbating the issue of fleet replacement has been the atrocious aviation safety record of Soviet era aircraft in operation within Russia.

Noting that "it is fairly obvious that the problems of regional air transportation cannot be solved by individual market participants", the study's authors stressed the need for comprehensive measures at government levels to support the development of regional air transport.

In 2008, the central government took steps to address the problem with a national public transport strategy. The plan envisaged the number of regional airports to reach 357 by 2020 and over 500 ten years later. Subsidies of 2 billion rubles were allocated to lease payments for new aircraft and about 1 billion rubles a year was targeted on fare subsidies.

The Ministry of Transportation of the Russian Federation forecast that government subsidies would reach 50 percent of the cost of fares on local airlines, and that these subsidies would be evenly distributed between federal and regional budgets. Up until 2012, regional contributions amounted to 1.6 billion rubles p.a. and have been directed primarily at subsidizing airline expenses.

The authors of the study commented that as of 2014 "federal and regional authorities do not see a need to interfere in the activities of business entities or provide financial support to private airlines". They advocated public-private partnerships to consolidate fragmented funding, link the interests of the airline industry with the needs of remote areas and combine economic efficiency with social value.

In 2014, according to Russia's Federal Air Transport Agency, 19 airlines participated in a domestic routes subsidy program covering a network of 130 destinations. This covered over 530,000 passengers on 12,000 flights. After the first nine months of the year, authorities excluded routes where stable demand had been formed.

In February the federal government announced that the subsidy program would continue in 2015 and pledged 1 billion rubles to that end. In addition, the authorities have announced a reduction in the VAT rate for domestic flights from 18 to 10 percent, which is estimated to reduce the tax burden on the airlines by about US$20 billion.

One issue is the divergence of requirements for regional air transport in the European part of Russia and the area beyond the Ural mountains. A study by Ilyushin Finance Company identified considerable differences between the two markets. In the European part of the country there are 11 airlines operating regional air routes serving 36 airports, all of which have paved runways. Typical flight distances fall within the corridor of between 200 km and 800 km. Passenger flows and runway conditions permit usage of the ATR-72 or the Bombardier Q400. On the Asian side there are 119 airports, 43 percent of which have unpaved (grass) runways. Typical flight distances fall between 400 and 3,000 km.

6.0 The issue of public subsidies for remote air services : implications for a Canadian policy

In light of the intense and extensive debate enveloping public air passenger subsidies in the study jurisdictions, the consultants cannot help but observe that a similar debate would likely shroud any parallel Canadian remote community air services subsidy program.

Additionally, the consultants would observe that the pace of liberalization in commercial aviation continues towards an overall reduction in economic regulation, as this policy drift moves beyond the OECD countries and into the ASEAN, China and Brazil markets : in essence, a regulatory convergence to increased competition. Further, the financial and political realities of the early 21st Century - certainly within the OECD, are trending towards a greater fiscal conservatism and, in general, a move towards relaxed tax policy. This is apparent in the Canadian fiscal context where public subsidies for air services to remote communities could be a difficult political 'sell' in this a federal election year – all the more so, when the funding of such services represents a new policy direction and not the continuation of an existing program.

Nonetheless, a number of insights have come into view from the above enquiry, should Canadian policy makers consider enacting public subsidies programs to remote communities in support of scheduled air services.

To that end, the consultants would offer the following observations, though listed in no particular order of importance :

- any public subsidy program will require substantive administration responsibilities to government, requiring qualified staff within the commercially sensitive realm of air services planning and marketing that even well established airlines find challenging

to staff. Crucial to the overall success of a new subsidy program will be a carefully constructed communications strategy;

- a clear set of criteria as to what constitutes remoteness and lifeline air services, as well as the threshold numbers which will sustain open competition are necessary;

- subsidized services need to be aligned with market needs and the responsiveness to demand created by the program;

- the subsidy of services need to be considered in a co-ordinated approach with regard to regional policy objectives alongside other funding mechanisms whose goal is the social and economic development of the communities at play;

- subsidized air fare pricing requires a deft hand at setting minimum and maximum fares, peak and off-peak pricing, discounts for residents and/or special needs travelers – essentially every factor affecting the pricing of the service;

- in light of the high fixed costs and low demand - aircraft operating costs (especially fuel which itself may need to be positioned by air), airport and air navigation costs can crucially affect the success of any public subsidy scheme – accurately determining the start-up and on-going cost of operations will remain key performance indicators upon which adequate flight frequency and accurate fare pricing will depend – no small challenge when contracts are often signed over a duration of several year or more;

- the design of an effective contract is essential as touched on in the previous point, must take into account a multiplicity of factors affecting the overall service. To mention a few other key variables : duration, minimum level of service, fare levels, flight frequencies, risk sharing, flexibility, air carrier initiatives to improve the efficiency of their services, demanding weather provisions, etc; - again, not any easy gambit; and,

- getting the tender process right need be closely examined, ensuring : transparency, adequate response timelines, recognizing contract constraints, etc. will be necessary to ensure that a reasonable level of attractiveness supports competition between as many respondent carriers as possible.

The consultants are left to ponder whether or not a subsidized air service program is the best method to generate economic benefits in remote communities. Other public programs, such as transferring federal funds into local infrastructure projects which support aviation activities could be a more cost-effective use of subsidies, and likely at a lower overall cost to the public purse.

any public subsidy program will require substantive administration responsibilities to government

6.1 A Geography Brief of Northern Canada

Occupying nearly 40 per cent of Canada's total landmass but only 0.3 percent of the country's population, the North is an iconic yet largely unknown part of Canada. The region remains weak economically, and faces a wide range of social and development issues.

Northern Canada encompasses all of the area above the 60th parallel and is divided into three territories : the Yukon, the Northwest Territories and Nunavut. Upwards of 90 per cent of the land area consists of barren rock, ice and snow, where most of the population is located either in the southern region or close to the coast of a lake, river or ocean. Despite the sub-arctic temperatures, much of the land is considered desert; as such, the vast majority of the foodstuffs, fuel, construction materials, durable goods and specialized services which support the population need be imported, often by air.

The region is heavily endowed with natural resources and in most cases they are very expensive to extract and situated in fragile environmental areas. Though GDP per person is higher than elsewhere in Canada, the region remains relatively poor, primarily due to the extreme cost of consumer goods. The region has historically and remains heavily subsidized by the government of Canada.

The three territories each have a greater proportion of aboriginal inhabitants than any of Canada's provinces. Since 1973, 20 or more northern land-claims settlements have been negotiated. Few Canadians realize the scale of these treaties (ie. the 7,000 First Nation peoples in the Yukon have title to 41,000 square kilometres, including subsurface rights on two-thirds of that land - which is more land than is contained in all the Indian reserves in southern Canada. The Nunavut Treaty has made the Inuit the largest private landowners in the world - with title to 350,000 square kilometres, virtually the same area as Germany.

A major distinction between the Provinces and the Territories involves natural resource royalties, which territorial governments cannot charge nor collect. This lingering historical legacy has become a contentious political issue as the North begins to make significant new discoveries of diamonds and oil.

There is no other region in this country that faces the breadth of complex environmental, social and political issues as found today in the Canadian North.

A major distinction between the Provinces and the Territories involves natural resource royalties, which territorial governments cannot charge nor collect.

6.2 Scheduled Air Carriers in the Canadian North

Unequivocally, civil aviation has and continues to play an encompassing role in the development of the Canadian North. Virtually every commercial use of fixed or rotary wing aircraft has been played out at some point within the vastness of the region.

Aviation yet provides the only source of year-round access for the majority of the North's communities - a key fixture in the timely movement of passengers and the resupply of goods between northern communities and the southern air transportation network. Aviation issues specific to the region has fostered the development of a regional air transport association – the Northern Air Transport Association. The region has 48 Transport Canada Certified airports and a total of 73 aerodromes – 20 airports in the North receive jet services, including 3 which handle seasonal international services.

civil aviation has and continues to play an encompassing role in the development of the Canadian North

Of interest to this research inquiry are the scheduled air carriers serving the Canadian North, with an intended focus upon those airlines which are based or operate a substantial proportion of their air networks within the North.

Three incumbent major players serve the North with sizeable regional networks radiating from each of the three Territorial capitals of Whitehorse, Yellowknife and Iqaluit : Air North based in the Yukon; Canadian North providing extensive scheduled services to communities in the Northwest Territories (NWT); and First Air serving Nunavut with some overlap of

service between the latter two carriers. All three operators feature significant First Nations' ownership stakes.

A short review of each carrier's fleet is included below; respective network route maps are contained in Appendix B :

Air North

Whitehorse-based Air North operates a fleet of jet and turboprop aircraft over a 10-point service network, including scheduled jet service to 5 southern centres :

1	B737-200 Combi (up to 120 seats and/or cargo)
4	B737-500 (122 seats)
1	B737-400 (156 seats)
5	Hawker-Sidley 748s (up to 60 seats and/or cargo)

Canadian North

Calgary-based Canadian North operates a fleet of jet and turboprop aircraft over an expansive network, including some 25 points in the North (a number in conjunction with local Tier III operators) alongside roughly the same number of centres in the south. The carrier has evolved an extensive 'workforce transportation' presence in the Alberta Oilsands, providing charter services between Oilsands airfields and cities across Canada where workers reside :

1	B737-200 Combi (up to 112 seats and/or cargo)
10	B737-300 (136 seats)
4	DHC-8 (37 seats)

First Air

Kanata-based First Air in joint venture partnerships with the Sakku and Qikiqtani First Aviation groups provide scheduled air service to a 29-point network in Nunavut, using First Air aircraft. First Air operates a diverse pax/cargo fleet including:

2	B737-200 Combi (up to 115 seats and/or cargo)
2	B737-200 (120 seats)
2	B737-400 Combi (140 seats and/or cargo)
1	B737-400 (156 seats)
9	ATR-42-300 (42 seats)
2	ATR-72-200 (60 seats)

Despite strong arguments from the incumbent northern airlines at the time, the Canadian Transportation Act of 1996 relaxed its mandate to regulate the air transportation industry in the North. Bill C44 – the Transportation Amendment Act of 2005 portrayed a strong pro-competitive view (ie. "competition is a means to economic prosperity of all regions of Canada,

both rural and urban"). The reality of 10 years of airline deregulation in Canada's North are the foremost challenges currently facing Canada's major northern air carriers. It is apparent that the larger southern based airlines are competing aggressively on major trunk routes to southern gateway airports with no obligation to provide regional or local service beyond northern gateways.

The reality of 10 years of airline deregulation in Canada's North are the foremost challenges currently facing Canada's major northern air carriers . . . the larger southern based airlines are competing aggressively on major trunk routes to southern gateway airports with no obligation to provide regional or local service beyond northern gateways.

When one reviews the population base of the North's gateway catchment areas, particularly the territorial capitals in the Yukon and the NWT, the competition between the number of carriers, the overall flight frequencies and the number of roundtrip seats available on north-south trunk routes to southern gateways as shown in Figure 2 is unexpectedly large - all the more so when comparing these factors against secondary population centres in the south. Stunningly, a Yellowknife-originating passenger has the choice of 5 domestic carriers providing direct service to 3 southern gateways ! The majority of Canada's National Airport System airports offer but 2 domestic airline choices in reaching the country's major hub airports.

Figure 2.

Airport	*City Population*	*Territorial Population*	*# of Carriers*	*Daily N-S Flights*	*Annual R/T Seats*
Whitehorse	**28,000**	**37,000**	**3**	**4 ~ 6**	**270,500**
Yellowknife	**21,000**	**44,000**	**5**	**7 ~ 9**	**226,800**
Iqaluit	**7,000**	**36,000**	**2**	**2 ~ 3**	**73,000**
Red Deer	**91,000**	**-**	**1**	**3**	**19,700**
Brandon	**56,000**	**-**	**1**	**1**	**25,500**
St John	**68,000**	**-**	**1**	**4***	**102,200**

* St John to Toronto

Currently Air Canada (AC) operates 2x daily frequencies between Vancouver and Whitehorse, providing service with a 90-seat EMB170 aircraft. AC services the Yellowknife market with 3x daily 50 seat CRJ aircraft : 2x from Calgary and 1x from Edmonton. AC

commenced a CRJ705 75 seat service to Iqaluit from Ottawa/Montreal in March, 2011 but ceased service in August, 2012 - industry observers suggest that the CRJ705 may not have provided a suitable mix of passenger and cargo capacity for the market.

WestJet (WJA) began service to Whitehorse in May, 2012 with a daily B737-700 Vancouver service through the summer season, ending in October. The carrier provided a similar level of daily service (136 seats) in 2013 and 2014; however, WJA has reduced its frequency to 3x weekly for the 2015 summer season. The carrier has serviced the Yellowknife market since May, 2009 – initially commencing seasonal service (May ~ Oct) with a daily frequency Edmonton – Yellowknife. WJA has since expanded the service to its current 2x daily flights, with one aircraft originating in Calgary and the other in Edmonton on a year-round basis. WestJet announced that it was extending the Calgary-Yellowknife service to year-round commencing in 2015.

a Yellowknife-originating passenger has the choice of 5 domestic carriers providing direct service to 3 southern gateways

Each of the northern carriers has adapted or changed their business models to reflect the strong competition found on their major North-South trunk routes. All of the northern carriers provide a range of customer amenities at no charge (ie. free meals, generous 2 bag allowances, seat bookings and such) unlike the southern airlines who charge for such offerings. Additionally, in recent years both Air North and Canadian North have become actively involved in workforce transportation charters, with the latter developing into a significant player in this sub-field. Air North has expanded its ground handling role in Vancouver, has created a fuel subsidiary and has taken risks in developing non-traditional Yukon-originating routes to Kelowna and Ottawa. First Air has dramatically truncated its multi-aircraft fleet - industry observers yet expect a First Air/Canadian North merger.

Figure 3 shows a brief overview of airfares ex-Whitehorse and Yellowknife and depicts comparable seat-km revenue for same day purchase for select mainline trunk routes in the west. As can be noted, airfares on trunk North-South routes remain well below rates on major southern trunk routes for 14-day advance purchase tickets. Typically, advanced purchase tickets represent some 70 to 80% of all tickets purchased.

the consultants would argue that an over capacity situation is currently in play in the Whitehorse and Yellowknife North-South trunk route markets.

Figure 3.

Routing	Distance in km	Airfare Same Day	Yield per km	Airfare 14 Day	Yield per km
YVR-YYC	686	$275	0.40	$154	0.23
YVR-YWG	1862	$327	0.18	$402	0.22
YYC-YWG	1193	$327	0.27	$186	0.16
YYC-YZF	1261	$337	0.27	$337	0.27
YXY-YVR	1485	$474	0.32	$183	0.12
YZF-YEG	1018	$288	0.28	$148	0.15

The consultants estimate load factors on the main North – South trunk routes to be in the 70 percent range for all carriers - well below the annual system wide load factors reported by both major carriers. In light of the information provided in Figures 1 and 2, the consultants would argue that an over capacity situation is currently in play in the Whitehorse and Yellowknife North-South trunk route markets.

6.3 Public Subsidies for Air Transport : The Northern Carrier Perspective

Northern operators were canvassed for their viewpoints on whether or not air service subsidies in the Canadian North portray a sound policy option and/or what alternatives would they suggest.

Unexpectedly – senior executives at each major northern air carrier were of the opinion : “No public subsidies for air transport in the North”. Each had subtle variations encasing a consistent theme : “public subsidy schemes for air transport would be an inefficient use of public funds in the North, such programs are typically expensive and contain too much latitude for abuse, misuse and often serve political ambitions . . . we do not believe that such subsidies make for a good policy option”.

The carriers observed that in light of the strong competition from the southern majors over the past five years that each has been forced to adjust their business plans and to upgrade service levels to adapt to the new business environment. As such, each has become more efficient and has and continues to develop an array of adaptive market skills. However, each carrier did specifically call for a “leveling of the playing field” in relation to accessing public servant traffic alongside a more sincere effort on the part of the two southern majors to work

with the northern carriers at interline, code-share or other joint marketing initiatives aimed at reducing overall capacity and increasing yields on North – South trunk routes.

Each carrier highlighted the fact that a high proportion of their revenues are retained in the North which foster a wide range of development benefits that accrue to the Territories – unlike the southern majors who export revenue, jobs and technology benefits to their major headquarter, operations and maintenance bases in the south.

each carrier did specifically call for a "leveling of the playing field" in relation to accessing public servant traffic alongside a more sincere effort on the part of the two southern majors to work with the northern carriers at interline, code-share or other joint marketing initiatives aimed at reducing overall capacity and increasing yields on North – South trunk routes.

Another major concern to each northern operator is the sustainability of small airports throughout the North, as one executive noted, "with the large scale investment by airport authorities, Canada's major airports have become the envy of the world. Unfortunately our smaller airports are the Third World !"

Executives from each of the carriers readily discussed a range of priorities needed to ensure a safe, efficient operating environment in Canada's North. All call for the requirement to pave key northern airports, to increase the quality and scope of landing and approach aids, to improve drainage and improve basic infrastructure. Each carrier noted that such investments would make a considerable improvement to safety, and would drive down costs.

The consultants present a short synopsis of the airport comments :

- "the federal government needs to show leadership in the investments for northern airports"
- "some of the large aircraft that are able to land on gravel runways are going to be obsolete in three to five years. With only 10 of the territories' 65 airports having paved runways, it begs the question of how these communities, particularly those in which major development projects are underway, will be served"
- "in general, we have an across the board $14 cost we add to every airline ticket sold to cover the cost of propellers and tires, entirely due to the poor runway surfaces we operate on"

- "we question federal priorities in the $300 million Iqaluit ATB project and the $200 million Inuvik - Tuktoyaktuk road when so much airport investment across the North need be undertaken. I look at the 14 paved runways at Greenland's18 airports, and I have to ask – who has the safest aviation environment / who truly recognizes the value of infrastructure investment to the well-being of its remote residents. Greenland gets it"

- **"**there is the issue of Transport Canada handing off responsibility for airports to the Territories, while retaining control over the rules and regulations. This has resulted in significant costs to the Territorial governments. The expense of keeping some airports up to federal standards has come at the expense of others"

- "there has to be recognition federally that northern communities need air transportation and there has to be a way that their airports can meet the new standards cost effectively"

The federal government announced a $14 billion Building Canada Fund, with a significant $9 billion Provincial – Territorial Infrastructure Component. A $25 million contribution from the $4 billion National Infrastructure Component has already been announced for infrastructure development at the Fort McMurray airport alongside $43 million for upgrades to the federally-owned Port of Montreal.

With this funding mechansim in place and in light of the precedent already set for investment in transportation infrastructure, the consultants would suggest that upgrading airport infrastructure throughout the North would be an appropriate place to direct the Building Canada funding.

6.4 The Impact of Frequent Flyer Programs on Northern Air Carriers

"Loyalty programs, such as frequent flyer programs, may have anti-competitive implications. These include 'loyalty inducing' effects, as well as providing a method through which to effect predation.

Frequent flyer programs provide an incentive for passengers to concentrate their travel on a single carrier. As part of these programs, passengers are awarded points that can be redeemed for travel on other routes. Because the number of points the customer has with a specific airline depends on the amount of business the customer has given to that airline, the customer has an incentive to fly as much as possible with the same carrier. In addition, such frequent flyer programs will induce customers to choose to fly on airlines with larger networks that provide a larger number of routes on which the frequent flyer points can be accumulated

and redeemed. All of these features contribute to the ability of a frequent flyer program to induce loyalty from customers.

Loyalty programs also provide a method that may be used to effect predation. For example, suppose that in response to entry on a particular route a dominant carrier increases frequent flyer rewards on that route beyond what it would normally offer in similar circumstances. This increase would have the same effect as lowering fares on the route; a package of greater value is being offered for the same price. If this increase is justified only because it eliminates or disciplines the new entrant, then it would be considered anti-competitive.

The Bureau anticipates that the manipulation of frequent flyer rewards would most likely be anti-competitive when their manipulation is part of an overall anti-competitive strategy. Therefore, the Bureau considers whether loyalty programs are being employed in order to contribute to, or enhance, the effects of other anti-competitive strategies. However, the Bureau does not rule out the possibility that such manipulation alone may be sufficient to constitute a practice of anti-competitive acts".

Frequent flyer programs provide an incentive for passengers to concentrate their travel on a single carrier

June 2014
Competition Bureau Submission to the OECD
Competition Committee Roundtable on Airline Competition

Unquestionably – loyalty pays.

The federal government loosened its policy towards the acquisition of frequent flyer points for federal employees some years ago. There was a time when frequent flyer points accrued to the federal government from travel conducted by public servants; no longer, federal employees conducting business on behalf of the government and using their own credit cards for payment now retain the points and benefits of the loyalty programs they ascribe.

The consultants would argue that while the redemption of points for individual or family air travel may be a significant inducement, a key motivator in the frequent flyer choice of carrier is the access provided to the business class lounges once a certain level of award has been achieved. Although the consultants have no empirical data to base this viewpoint, the Mike Duffy private journals in the present on-going trial of the Senator perhaps shed some light on this practice. As noted in a June 08, 2015 MacLean's article, Senator Duffy's journal notes show "at least 117 flights on Air Canada, plus 2 on WestJet" over a 4 year period. We assume that the purchase of airline tickets by Canada's Senators would be governed by similar principals as civil servants. If so, it is curious that virtually all of Senator Duffy's

tickets were purchased on Air Canada where both carriers provide substantively similar frequency, capacity and pricing schedules to, at a minimum, the country's 20 largest domestic air markets. As such, one would reasonably assume that Senator Duffy's ticketing choices would provide for a greater balance of purchases between the two major airlines. Apparently not – and most certainly not if the ticket purchaser is intent on accruing the Aeroplan loyalty benefits which permit access to Air Canada's airport business class lounges and check-in privileges, irrespective of the class of service booked.

Augmenting this situation is the widely cited carrier bias resident on the federal government travel purchase site (PWGSC Shared Travel Services). All of the northern operators have expressed frustration with the PWGSC booking platform, arguing that Global Distribution System biases do not display their inventory and prices on the federal government Online Booking Tool for Government of Canada travelers.

What the consultants find curious, is fact that many public servants are travelling to the North for the primary task of facilitating or discussing social and/or economic development. How better to further northern economic and social development than to purchase the services of northern air carriers – whose local benefits are precisely what has motivated their travel to the North ?

The NJC Travel Directive states that "preference shall be given to using Canadian suppliers, services and products". Additionally advising that "the lowest airfares are to be sought" and "where possible the travel arrangements should be booked in advance to obtain optimal discounted rates". In fact, that is not always the case – as some observers suggest that savvy travelers can often find high yield fares or circuitous routings, even in economy class, that create substantive loyalty rewards.

All of the northern carriers observed that, in general, federal civil servant booking practices are creating above average yields - primarily benefiting Air Canada. This small segment – perhaps less than 5 percent of the market likely creates 25 percent or more of the revenue on North - South trunk routes to southern gateway airports. It is this market segment that has skewed the northern air passenger market in favour of AC - a segment that is currently very difficult for the northern operator to attract.

All of the northern operators have expressed frustration with the PWGSC booking platform, arguing that Global Distribution System biases do not display their inventory and prices on the federal government Online Booking Tool for Government of Canada travelers

The consultants would suggest that the entire federal government booking platform be closely examined to establish whether GDS biases do exist and the extent to which public servant purchases are influenced by frequent flyer programs.

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Addendum

COMPARISON OF APPROACHES FOR SUPPORTING, PROTECTING & ENCOURAGING REMOTE AIR SERVICES

ADDENDUM - Comparison of Approaches for Supporting, Protecting & Encouraging Remote Air Services

The addendum contains 2 sections of further research (A & B additions below) to the above report as requested of the Draft Report. Additionally, we include the short 'specific proposals' segment below which amplifies those policy observations and recommendations contained in our Draft Report.

Specific proposals for consideration by the CTAR Air Advisory Committee :

PS Travel

- In order to support the Government of Canada mandate of facilitating the economic and social development of the North, a Public Servant Purchasing Policy should mandate that all air travel from southern gateways to northern communities be undertaken solely on northern air carriers;

Mandating Co-operative Arrangements

- The northern air transportation grid must be accessible and interact to the best extent possible with the southern air grid. At a minimum, this must include the interlining of passenger baggage between northern and southern carriers;

- In light of the infrastructural and weather challenges facing northern operators, provision must be made by southern carriers to accommodate passengers, baggage and cargoes who have experienced delayed northern flights on a no 'change fee' cost basis;

The above policy changes would come at virtually no expense to the Canadian taxpayer, and would significantly alter the northern air carrier landscape to permit northern operators to readily compete with southern carriers in their respective markets.

Infrastructure Development

- The relationship between greater northern development and improvements to the northern transportation infrastructural cannot be in dispute. As uncovered in this study, Canada lags well behind other jurisdictions in making infrastructural investments, especially at northern airports. Such investment would enhance aviation safety and improve the operating efficiencies of northern air carriers. The Building Canada Fund represents a real, near-term funding opportunity to provide much-needed investment in northern airport infrastructure – it must not be missed.

B. Transitionary regulations in effect during the AC-CP merger period

The consultants will observe that the period of the AC-CP merger was a time of considerable uncertainty – in 2001 the world was yet reverberating from the 9-11 attack, the high-tech meltdown, plunging stock markets and considerable air passenger angst and confidence issues in both air transport and the near-term economic future.

Additionally, major air carriers were coming to grips with the need for change within their respective business plans as low-cost carriers began to make significant inroads into their traditional markets. Many chose the interline route to increase their networks which developed into the major airline alliances which now dominate world air networks.

The federal government commissioned an extensive review of airline restructuring in Canada which the consultants have utilized extensively in this section. The report did not contain any reference to the yet evolving codeshare platform.

The following materials have been extracted from :

Airline Restructuring in Canada Final Report

PREPARED BY DEBRA WARD
Independent Transition Observer on Airline Restructuring
September 2002

Protection of Service to Small Communities

Two provisions protect small communities. The first was an Air Canada obligation to serve all communities that were being served in December 1999 by Air Canada, Canadian Airlines Corp. or their wholly owned subsidiaries. This commitment is in effect until the end of this year. The second provision requires air carriers to give 120 days notice before discontinuing year-round, non-stop scheduled air services between two points in Canada where the proposed discontinuance of service will result in a significant reduction of weekly passenger-carrying capacity between those two points. As well, the carrier has to provide an opportunity for elected officials of the municipal or local government to meet and discuss the impact of the proposed discontinuance or reduction.

The first provision is intended to give time to communities to lessen their reliance on Air Canada, and look for locally based solutions. Community officials with whom I have spoken over the last two years have become far more realistic and more sophisticated in dealing with the issues, and with airlines. I also believe that there are a number of smaller carriers across the country that would step in, very effectively, if Air Canada were no longer serving a community. This would have the benefit of helping develop more independent carriage in Canada.

The second provision applies to all carriers. Formerly, carriers were able to exit a community with 60 days notice, and did not have to contact local elected officials. This new approach is intended to give communities more time to plan and an ability to discuss the carrier's decision and explore new options.

The usefulness of the new provisions around exits will best be judged more fully once Air Canada can exit communities. It is almost impossible to judge the efficacy of this measure

until then, and I therefore recommend that no changes be made at this time, but that the provision be monitored closely over the next year or two.

9.0 Recommendation on Protection of Service to Small Communities:

> 9.1 That the 120-day exit provision continue without change, but that the Government of Canada monitor its efficacy in the following areas:
> • Outcomes of airlines' discussions with elected officials
> • Measurement of the appropriateness of the 120-day provision to ensure that it provides enough time for community action, but does not deter new entrants

Interlining and Joint Fares

These undertakings ensure that Air Canada enters into interlining (e.g. baggage transfers, ticketing and bookings) and joint fare agreements with any Canadian carrier that so requests, subject to certain provisions (i.e. "meets reasonable industry standards").

This guarantees that any Canadian carrier can link into the Air Canada network, currently the only domestic network that serves both Canadian and international points.

This provides access, but not equality. An Air Canada "partner" third-tier airline could offer lower fares, better connections and even, at times, "status miles". These are significant competitive advantages over independent carriers and the advantages may be so powerful that they could stifle the development of competition on regional routes.

This problem is a direct outcome of the acquisition by Air Canada of Canadian Airlines Corp., each of which had its own regional and mainline network feeding into two different international alliances (Star Alliance for Air Canada and Oneworld for Canadian Airlines). The loss of CAC also meant the loss of Oneworld and all the opportunities for connectivity that it offered. Without a second network, it is difficult to imagine how third-tier regional carriage can develop much more than it has.

One possible solution is to make this provision tougher. For example Air Canada could be required to create equivalent "joint fares" for all third party carriers, whether they are partners or not, using a "most favoured nation" (MFN) system: what applies for one, applies for all. In fact, if competition does not grow, this type of measure may be necessary. It is not, however, ideal to regulate contractual agreements. It is more effective to open the market to forms of competition that would lead to the development of alternatives to Air Canada and its network. This is another factor in support of trade and ownership liberalization.

As it currently stands, the government needs to assess whether this provision is effectively creating a "level playing field" for independent carriers. If it is not, the government must be prepared to enact changes (ideally through liberalization, although imposition of an "MFN" policy is an option) as required to create a better environment for competition.

16.0 Recommendation on Joint Fares and Interlining:

> 16.1 That the Government of Canada monitor the development of third-tier competitive carriage in Canada, and assess whether the current provisions assist carriers sufficiently. Further, the Government of Canada should review other options to determine if there are additional actions it should take.

Access to Aeroplan

Air Canada must sell its frequent flyer points to eligible Canadian carriers (with revenues of $250 million or less) on commercially reasonable terms. In practice, this measure is not ideal.

- First, it promotes the use of a unique Air Canada product, Aeroplan, essentially extending AC's market reach, not containing it.
- Second, this undertaking applies only to the type of frequent flyer points that can be traded in for tickets on Air Canada flights. Air Canada (and its partners and subsidiaries) are the only carriers which offer "status miles": points which deliver frequent traveler perks of lounge access, priority lines and baggage claim, etc. In a competitive market, Air Canada retains a significant advantage by offering this unique product.
- Third, carriers have complained about delays in processing the paperwork and the need to submit to an Air Canada safety audit prior to getting access to the program.

This undertaking is to end in 2005. The ideal market solution would be the development of an alternative carrier network that fed into, and offered, competitive points (such as AAdvantage). However, without a more liberalized environment, this solution is unlikely to emerge in that short a period.

As a result, the next best solution is to ensure that the undertaking is as effective as possible, notwithstanding its limitations.

15.0 Recommendations on Aeroplan:

> 15.1 That the Government of Canada ensure, that in the absence of competitive frequent flyer plans, this program is readily and fairly accessible to independent carriers that wish to participate.
> 15.2 That in the continued absence of competitive frequent flyer plans, the commitment is extended past its current deadline, if necessary.

APPENDIX A

LIST OF SUBSIDIZED EAS ROUTES :

CONTINENTAL US AND ALASKA

Table 2. List of Subsidized EAS Outside of Alaska

State	Number of EAS Communities	EAS Community	Hub(s)	EAS Subsidy Rate as of Jan. 1, 2014	Per Passenger Subsidy YE Sept. 30, 2013
Alabama	1	Muscle Shoals	ATL	$2,603,365	$655
Arizona	4	Kingman	LAX	$1,635,180	$984
Arizona		Page	DEN/PHX	$2,472,028	$196
Arizona		Prescott	LAX/DEN	$2,094,325	$194
Arizona		Show Low	PHX/LAX	$1,672,000	$224
Arkansas	4	El Dorado/Camden	DAL/MEM	$1,977,153	$255
Arkansas		Harrison	MEM/MCI	$2,251,207	$204
Arkansas		Hot Springs	DAL/MEM	$1,637,012	$306
Arkansas		Jonesboro	STL	$1,717,781	$175
California	4	Crescent City	SFO	$1,996,959	$79
California		El Centro	BUR/SAN	$1,943,751	$327
California		Merced	LAX	$1,698,878	$353
California		Visalia	LAX	$1,697,929	$251
Colorado	3	Alamosa	DEN	$2,078,676	$149
Colorado		Cortez	DEN	$2,240,766	$137
Colorado		Pueblo	DEN	$1,592,276	$174
Georgia	2	Athens	BNA	$1,630,410	$443
Georgia		Macon	ATL/MCO	$1,998,696	$805
Hawaii	2	Kalaupapa	HNL/MKK	$932,509	N/A
Hawaii		Kamuela	OGG	$494,291	N/A
Illinois	3	Decatur	ORD/STL	$2,667,922	$208
Illinois		Marion/Herrin	STL	$2,104,616	$105
Illinois		Quincy	STL	$1,956,856	$94
Iowa	5	Burlington	ORD/STL	$1,917,566	$148
Iowa		Fort Dodge	MSP	$1,798,693	$307
Iowa		Mason City	MSP	$1,174,468	$166
Iowa		Sioux City	ORD	$1,512,799	$30
Iowa		Waterloo	ORD	$1,541,824	$40
Kansas	6	Dodge City	DEN	$1,688,598	$144
Kansas		Garden City	DFW	$2,919,026	$64
Kansas		Great Bend	DEN	$1,082,020	$546
Kansas		Hays	DEN	$2,164,041	$120
Kansas		Liberal/Guymon	DEN	$2,555,150	$211
Kansas		Salina	MCI	$1,490,479	$317
Kentucky	2	Owensboro	STL	$1,529,913	$198

State	Number of EAS Communities	EAS Community	Hub(s)	EAS Subsidy Rate as of Jan. 1, 2014	Per Passenger Subsidy YE Sept. 30, 2013
Kentucky		Paducah	ORD	$2,034,160	$51
Maine	4	Augusta/Waterville	BOS	$1,362,616	$121
Maine		Bar Harbor	BOS	$1,631,223	$160
Maine		Presque Isle/Houlton	BOS	$3,892,174	$179
Maine		Rockland	BOS	$1,420,545	$97
Maryland	1	Hagerstown	IAD	$1,785,638	$738
Michigan	9	Alpena	DTW/MSP	$3,098,472	$96
Michigan		Escanaba	DTW	$2,833,558	$98
Michigan		Hancock/Houghton	ORD	$690,976	$14
Michigan		Iron Mountain/Kingsford	MSP	$2,512,971	$134
Michigan		Ironwood/Ashland	MSP	$1,747,326	$345
Michigan		Manistee/Ludington	MDW	$2,055,781	$427
Michigan		Muskegon	ORD	$1,389,952	$44
Michigan		Pellston	DTW	$1,077,413	$20
Michigan		Sault Ste. Marie	DTW	$1,676,136	$40
Minnesota	5	Bemidji	MSP	$1,338,293	$30
Minnesota		Brainerd	MSP	$1,356,764	$47
Minnesota		Chisholm/Hibbing	MSP	$2,517,770	$120
Minnesota		International Falls	MSP	$1,107,900	$40
Minnesota		Thief River Falls	MSP	$1,881,815	$435
Mississippi	4	Greenville	ATL	$3,522,398	$604
Mississippi		Laurel/Hattiesburg	ATL	$2,965,667	$251
Mississippi		Meridian	ATL	$2,417,808	$178
Mississippi		Tupelo	ATL	$3,522,398	$308
Missouri	4	Cape Girardeau/Sikeston	STL	$1,627,966	$134
Missouri		Fort Leonard Wood	STL	$2,905,794	$173
Missouri		Joplin	DFW	$342,560	$7
Missouri		Kirksville	STL	$1,649,248	$145
Montana	7	Butte	SLC	$735,956	$14
Montana		Glasgow	BIL	$2,046,800	N/A
Montana		Glendive	BIL	$1,944,467	N/A
Montana		Havre	BIL	$2,036,254	N/A
Montana		Sidney	BIL	$3,777,579	N/A
Montana		West Yellowstone	SLC	$535,141	$50
Montana		Wolf Point	BIL	$2,145,326	N/A

State	Number of EAS Communities	EAS Community	Hub(s)	EAS Subsidy Rate as of Jan. 1, 2014	Per Passenger Subsidy YE Sept. 30, 2013
Nebraska	7	Alliance	DEN	$1,309,865	$406
Nebraska		Chadron	DEN	$1,309,865	$290
Nebraska		Grand Island	DFW	$1,837,021	$41
Nebraska		Kearney	DEN	$1,752,904	$66
Nebraska		McCook	DEN	$1,976,338	$510
Nebraska		North Platte	DEN	$1,697,510	$102
Nebraska		Scottsbluff	DEN	$1,398,351	$73
New Hampshire	1	Lebanon/White River Jct.	BOS/HPN	$2,347,744	$120
New Mexico	3	Carlsbad	ABQ	$1,397,081	$260
New Mexico		Clovis	DEN	$1,954,490	$622
New Mexico		Silver City/Hurley/Deming	PHX	$2,098,460	$749
New York	6	Jamestown	CLE	$1,940,272	$307
New York		Massena	ALB/BOS	$2,090,949	$215
New York		Ogdensburg	ALB/BOS	$1,702,697	$160
New York		Plattsburgh	BOS	$2,470,834	$168
New York		Saranac Lake/Lake Placid	BOS	$1,366,538	$130
New York		Watertown	ORD	$3,356,349	$88
North Dakota	2	Devils Lake	MSP	$2,797,467	$501
North Dakota		Jamestown	MSP	$1,987,655	$383
Oregon	1	Pendleton	PDX	$1,834,708	$215
Pennsylvania	6	Altoona	IAD	$1,998,594	$255
Pennsylvania		Bradford	CLE	$1,940,272	$452
Pennsylvania		DuBois	CLE	$2,587,029	$264
Pennsylvania		Franklin/Oil City	CLE	$1,293,515	$413
Pennsylvania		Johnstown	IAD	$1,998,594	$163
Pennsylvania		Lancaster	IAD	$2,504,174	$635
Puerto Rico	1	Mayaguez	SJU	$1,198,824	$111
South Dakota	3	Aberdeen	MSP	$1,198,222	$24
South Dakota		Huron	MSP	$1,929,349	$554
South Dakota		Watertown	MSP	$1,710,324	$193
Tennessee	1	Jackson	BNA/MEM	$1,115,210	$229
Texas	1	Victoria	IAH	$2,294,036	$352
Utah	3	Cedar City	SLC	$2,317,439	$98
Utah		Moab	DEN	$1,798,772	$208

State	Number of EAS Communities	EAS Community	Hub(s)	EAS Subsidy Rate as of Jan. 1, 2014	Per Passenger Subsidy YE Sept. 30, 2013
Utah		Vernal	DEN	$1,297,615	$78
Vermont	1	Rutland	BOS	$1,360,481	$126
Virginia	1	Staunton	IAD	$3,394,629	$120
West Virginia	5	Beckley	IAD	$2,512,494	$335
West Virginia		Clarksburg/Fairmont	IAD	$1,728,125	$147
West Virginia		Greenbrier/W. Sulphur Springs	ATL/IAD	$3,484,710	$254
West Virginia		Morgantown	IAD	$1,728,125	$85
West Virginia		Parkersburg/Marietta	CLE	$2,587,029	$158
Wisconsin	2	Eau Claire	ORD	$1,546,536	$40
Wisconsin		Rhinelander	MSP	$1,519,619	$45
Wyoming	3	Cody	SLC	$627,696	$23
Wyoming		Laramie	DEN	$1,635,346	$74
Wyoming		Worland	DEN	$1,987,148	$356
Total	**117**			**$223,977,011**	$655

Source: Office of Aviation Analysis, U.S. Department of Transportation.

Note: Airports marked N/A experienced a change of carrier during the fiscal year or otherwise have insufficient data to determine annual cost per passenger. EAS subsidy rates are subject to change. Airports more than 210 miles from their respective nearest hub airports are exempt from the $200-per-passenger subsidy rate cap.

Table 3. List of Subsidized EAS in Alaska

Alaskan EAS Community	Hub(s)	EAS Subsidy Rate as of Jan. 1, 2014
Adak	ANC	$2,057,114
Akutan	DUT	$579,220
Alitak	ADQ	$11,333
Amook Bay	ADQ	$11,333
Angoon	JNU	$145,734
Atka	DUT	$822,445
Central	FAI	$152,902
Chatham	JNU	$11,472
Chisana	TOK	$81,040
Circle	FAI	$152,902
Cordova	ANC/JNU	$2,145,356
Diomede	OME/WAA	$188,760
Elfin Cove	JNU	$75,391
Excursion Inlet	JNU	$27,111
Funter Bay	JNU	$13,416
Gulkana	ANC	$269,189
Gustavus	JNU	$536,339
Healy Lake	FAI	$104,703
Hydaburg	KTN	$151,773
Kake	JNU	$177,574
Kitoi Bay	ADQ	$11,333
Lake Minchumina	FAI	$102,300
Manley	FAI	$45,534
May Creek	GKN	$103,099
McCarthy	GKN	$103,099
Minto	FAI	$45,534
Moser Bay	ADQ	$11,333
Nikolski	DUT	$324,998
Olga Bay	ADQ	$11,333
Pelican	JNU	$185,721
Petersburg	JNU/KTN	$1,738,290
Port Alexander	SIT	$75,293
Port Bailey	ADQ	$11,333
Port Williams	ADQ	$11,333
Rampart	FAI	$76,416

Alaskan EAS Community	Hub(s)	EAS Subsidy Rate as of Jan. 1, 2014
Seal Bay	ADQ	$11,333
Tatitlek	ANC	$93,080
Tenakee	JNU	$135,576
Uganik	ADQ	$11,333
West Point	ADQ	$11,333
Wrangell	JNU/KTN	$1,738,290
Yakutat	ANC/JNU	$2,145,356
Zachar Bay	ADQ	$11,333
Total		**$14,729,690**

Source: Office of Aviation Analysis, U.S. Department of Transportation.

Note: EAS subsidy rates are subject to change.

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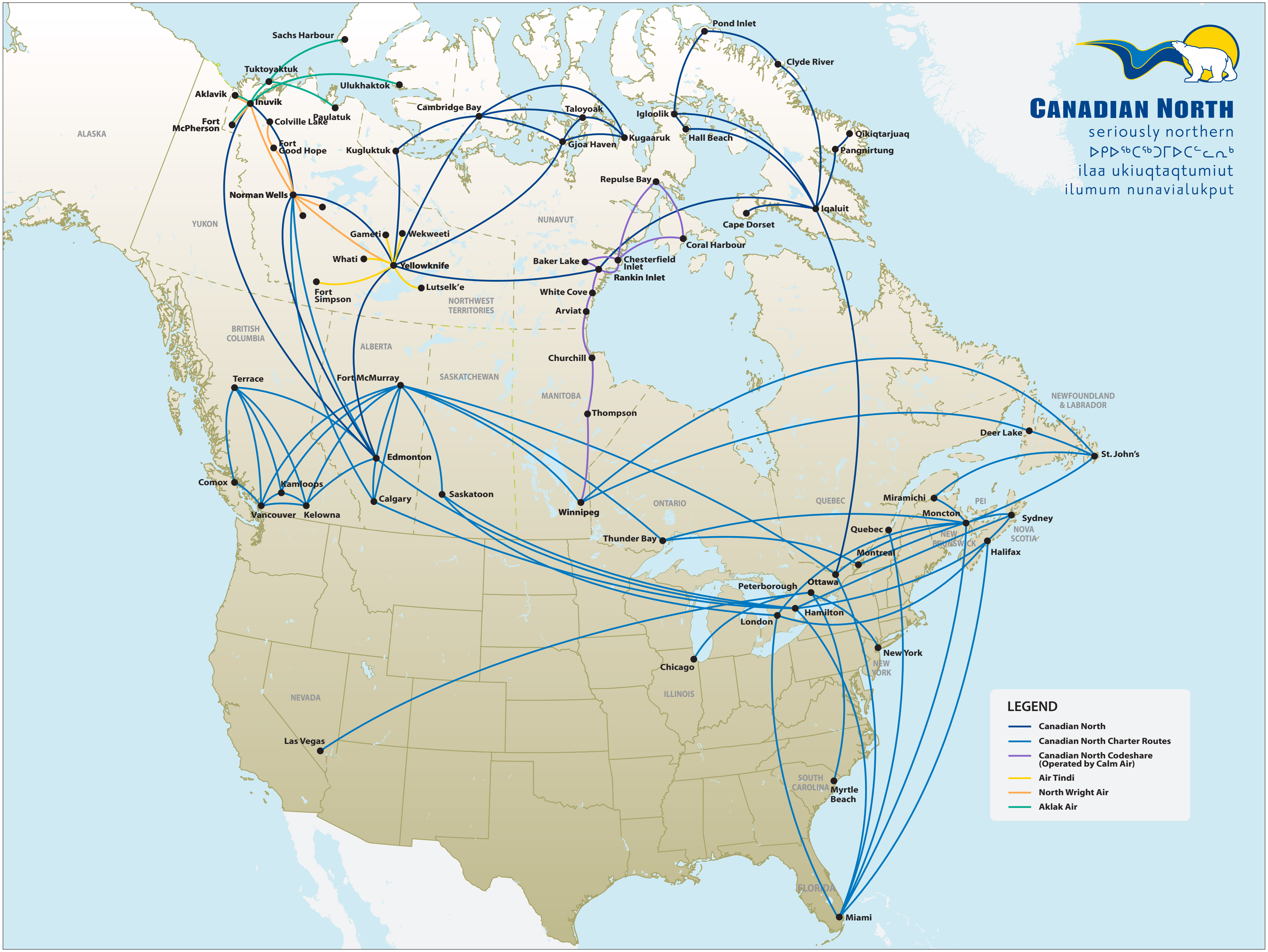
APPENDIX B

NORTHERN AIR CARRIER ROUTE MAPS

AIR NORTH ROUTE MAP


CANADIAN NORTH
seriously northern
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ilaa ukiuqtaqtumiut
ilumum nunavialukput
LEGEND
Canadian North
Canadian North Charter Routes
Canadian North Codeshare (Operated by Calm Air)
Air Tindi
North Wright Air
Aklak Air
ALASKA
YUKON
BRITISH COLUMBIA
ALBERTA
SASKATCHEWAN
MANITOBA
NORTHWEST TERRITORIES
NUNAVUT
ONTARIO
QUEBEC
NEWFOUNDLAND & LABRADOR
PEI
NEW BRUNSWICK
NOVA SCOTIA
NEW YORK
ILLINOIS
NEVADA
SOUTH CAROLINA
FLORIDA
Sachs Harbour
Tuktoyaktuk
Ulukhaktok
Aklavik
Inuvik
Paulatuk
Fort McPherson
Colville Lake
Fort Good Hope
Norman Wells
Kugluktuk
Cambridge Bay
Taloyoak
Gjoa Haven
Kugaaruk
Pond Inlet
Clyde River
Igloolik
Hall Beach
Qikiqtarjuaq
Pangnirtung
Repulse Bay
Iqaluit
Cape Dorset
Coral Harbour
Gameti
Wekweeti
Whati
Yellowknife
Lutselk'e
Fort Simpson
Baker Lake
Chesterfield Inlet
Rankin Inlet
White Cove
Arviat
Churchill
Thompson
Terrace
Fort McMurray
Edmonton
Comox
Kamloops
Vancouver
Kelowna
Calgary
Saskatoon
Winnipeg
Thunder Bay
Deer Lake
St. John's
Miramichi
Moncton
Sydney
Quebec
Halifax
Montreal
Ottawa
Peterborough
Hamilton
London
New York
Chicago
Las Vegas
Myrtle Beach
Miami

FIRST AIR
The Airline of the North

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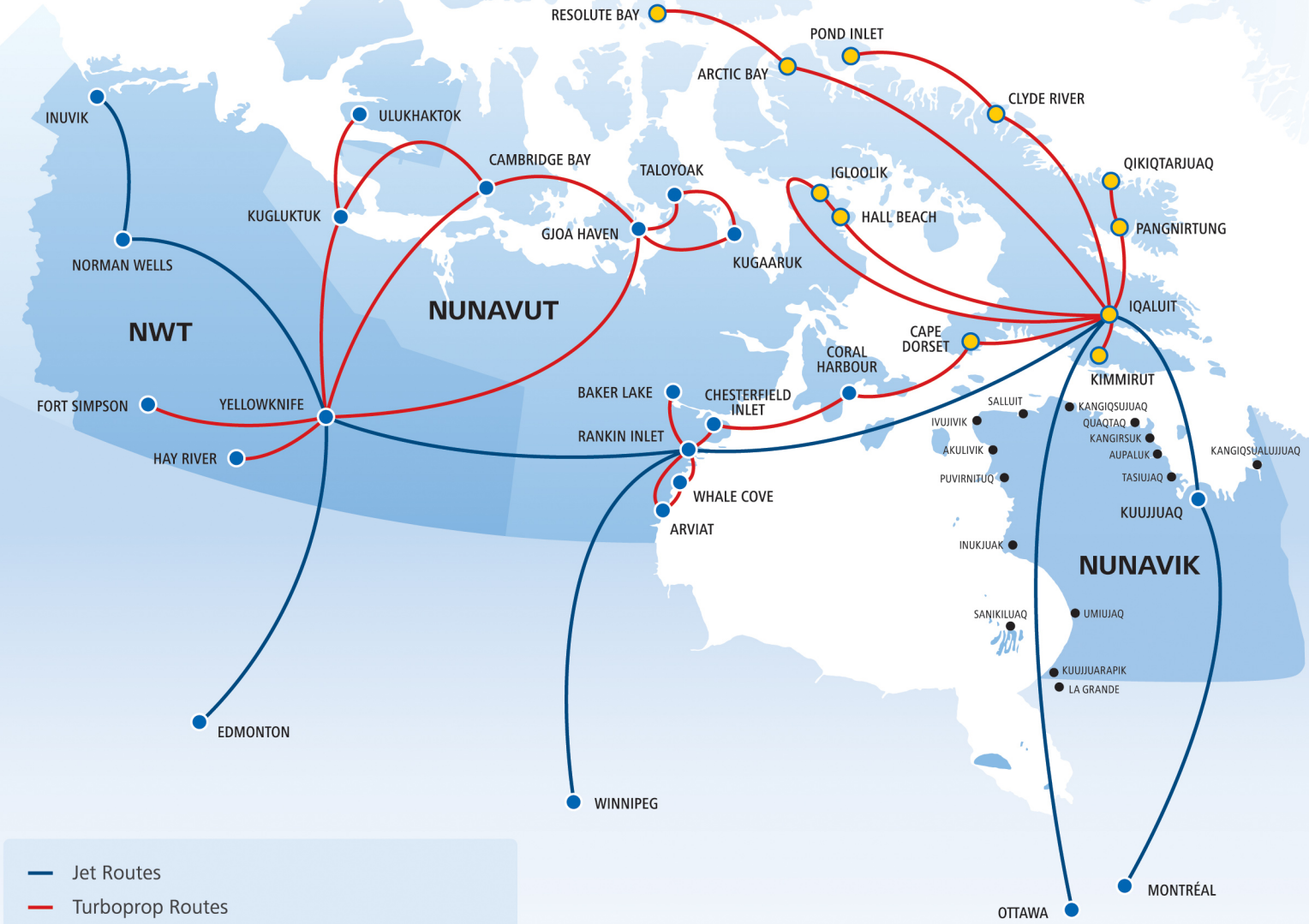
QIKIQTANI FIRST AVIATION



Jet Routes
Turboprop Routes
Communities serviced by Qikiqtani First Aviation
Communities serviced by First Air

Airport Codes

YAB	ARCTIC BAY	**YFS**	FORT SIMPSON	**YBB**	KUGAARUK	**YVM**	QIKIQTARJUAQ
YEK	ARVIAT	**YHK**	GJOA HAVEN	**YCO**	KUGLUKTUK	**YRT**	RANKIN INLET
YBK	BAKER LAKE	**YUX**	HALL BEACH	**YVP**	KUUJJUAQ	**YRB**	RESOLUTE BAY
YCB	CAMBRIDGE BAY	**YHY**	HAY RIVER	**YUL**	MONTRÉAL	**YYH**	TALOYOAK
YTE	CAPE DORSET	**YGT**	IGLOOLIK	**YVQ**	NORMAN WELLS	**YHI**	ULUKHAKTOK
YCS	CHESTERFIELD INLET	**YEV**	INUVIK	**YOW**	OTTAWA	**YWG**	WINNIPEG
YCY	CLYDE RIVER	**YFB**	IQALUIT	**YXP**	PANGNIRTUNG	**YXN**	WHALE COVE
YZS	CORAL HARBOUR	**YLC**	KIMMIRUT	**YIO**	POND INLET	**YZF**	YELLOWKNIFE
YEG	EDMONTON						