

THE EU-US OPEN SKIES AGREEMENT AND ITS IMPACT ON AIR TRAFFIC
MANAGEMENT

By Glen McDougall, President, MBS Ottawa Inc, Canada and Senior Fellow, School
of Public Policy, George Mason University

ABSTRACT

The mandate of Air Traffic Management (ATM) organizations is to maintain the safety of air operations in the sky and on the ground. Open Skies is estimated to increase transatlantic traffic significantly and to open new routes. It is imperative for ATMs to maintain safety levels but in this new atmosphere of increasing volume and time pressures will they become the “weakest link” in the aviation value chain? Safety standards in both EU and USA are high now but improvements will be necessary to avoid future restrictions and delays. Hence ATM providers will need agility in enhancing safety through resource management, new technology and harmonization of procedures in a customer-driven environment. This may mean liberalization of ATM providers themselves. Possible solutions are discussed referring to evidence from a 2006 study of the performance of ten ‘liberalized’ air traffic management organizations.

PROBLEM STATEMENT

How to ensure that, in order to preserve safety, Air Traffic Management Services do not become a restriction on the liberalized aviation market created by the new Open Skies Agreement between the US and the EU.

KEYWORDS

(to follow)

INTRODUCTION

This paper concerns the impact of the 2008 Open Skies Agreement between the United States and the European Union on Air Traffic Management, specifically the possible restraint on market growth caused by the necessity to preserve aviation safety under the current structure of operation of ATM in Europe and the US. This paper recognizes that there will be potential increases in capacity and safety under the advanced technology of SESAR (Europe) and NextGen (US) but suggests such increases are at least a decade away and that, even when fully implemented, technology alone will not be able to provide the maximum benefits of Open Skies to the aviation industry.

The Open Skies Agreement will have a significant impact on the freedom of air carriers to add services and introduce new routes, greatly increasing the number of passengers flying between the US and Europe. Mr. Jacques Barrot of the European Commission has estimated that, over the next five years, the agreement will increase annual trans-Atlantic traffic by 26 million passengers and generate economic benefits up to 12 billion Euros¹. Open Skies will undoubtedly increase pressure on already stressed ATM resources on both sides of the Atlantic. How will ATM respond to these increasing demands?

Because Air Traffic Management's (ATM) primary purpose is to ensure the safe separation and movement of aircraft and because safety concerns are paramount to the industry, ATM providers cannot accommodate the expected increase in aircraft movements by diminishing their safety practices. To quote the Netherlands Ministry of Transport, Public Works and Water Management: "All flying is prohibited until it has been proved that it can take place safely. This is the basic principle, nationally and internationally, to guarantee aviation safety."²

With a significant increase in traffic expected from Open Skies, the ability of ATM to deliver safe services to an increased number of aircraft will need to improve on both sides of the Atlantic, sooner rather than later, and with a sense of urgency. If such

¹ "EU backs US deal on Atlantic Air Routes", International Herald Tribune, March 22, 2007

² Ministerie van Verkeer en Waterstaat web site accessed 24 Jan 2008.

increases in service are not achieved, air traffic will need to be restricted in order to maintain safe separation thus diminishing the positive effects of market liberalization.

GROWTH IN DELAYS

The assurance of safe ATM services to increased numbers of flights and locations could manifest itself through increased delays, limitations on arrivals or departures, increased costs and increased environmental emissions. The intended benefits from market reform policies can therefore become thwarted by ATM. Improving ATM capacity must be addressed at the same time as market liberalization reforms if the benefits of Open Skies are to be realized and chaos avoided.

In the 1980s Canada faced a similar situation. Market liberalization was introduced to domestic aviation by de-regulation of routes, prices and market entry. Toronto rapidly became an airline hub and traffic demand grew by over 40%. However, at the same time, the Canadian government, which at that time provided ATM service through the Department of Transport, reduced the budget of the ATM service in keeping with government-wide cost reductions. The result was uncoordinated policies which caused a cascade of management problems and was responsible for the eventual reduction of training and resourcing of air traffic controllers. Toronto airport's capacity was reduced by 25% and the effects were felt throughout Canada. The benefits of market liberalization were not realized.

The Canadian ATM services, under government restraints, were unable to keep pace with the liberalized market resulting in dissatisfaction among managers, employees and, most importantly, their customers, the aviation industry. The need to reform the ATM system was exposed by the liberalization of the market and resulted in the commercialization of air navigation services and the transfer of all personnel and assets associated with that function to a new corporation, NAV CANADA.

NAV CANADA was the first privatized not-for-profit corporation in the world for provision of national ATM services. It was created for the sole purpose of improving the performance of ATM services in Canada while preserving safety. At the same time, airports were liberalized to remove government restraints that also inhibited the

benefits of market reforms. Hence the aviation value chain became completely liberated from one end to the other. Government preserved the public interest through safety oversight and other policy means while at the same time received financial payments for their ownership in the ANS and airports to the benefit of taxpayers.

Within the international aviation community there is widely held recognition that both the U.S.A. and Europe are in urgent need of addressing segments of their value chains that are already causing delays and excessive environmental emissions. According to the latest Airbus market forecast,³ over 25% of flights in Europe and the US are delayed with average delay in the US being 62 minutes. This is even worse if flight cancellations are included. A liberalized market between the US and Europe, and other Open Skies Agreements with other countries, will only exacerbate the delay problem. The Airbus report expects commercial air traffic globally to triple in 20 years.

The causes of delay vary in attribution by analyst, but are the combined result of airport capacity, airline scheduling, weather, aircraft size, mixing recreational and commercial aircraft in congested airspace, environmental restrictions such as noise curfews, hubbing (not making optimum use of existing airport infrastructure) and failure to implement technology. There are other causes such as terminal and apron capacity, crew availability, security and so on.

This paper deals only with how civilian Air Navigation Service Providers (ANSPs) can handle the large growth in movements while maintaining safety, and what governments can do to increase ATM performance.

THE COMING TECHNOLOGICAL REVOLUTION

The world commercial aircraft fleet is not large. According to Airbus, there are about 20,000 passenger aircraft of all sizes globally and 1,700 cargo aircraft. They expect this fleet to double by 2026. For a computer this number of points is readily manageable. Consider that this number is less than the number of hairs on a human

³ 'Flying by Nature', Airbus Global Market Forecast 2007 – 2026, December 2007

head. If aircraft are properly equipped, Satellite technology available today allows the position of every aircraft to be known. It is therefore feasible for the ATM system to know where every commercial aircraft is, where it is going, what time it will be occupying particular coordinates of airspace and expected time of arrival at its destination. Even today, trials of Required Time of Arrival (RTA) and Required Navigation Performance (RNP) using satellite-based positioning are extremely accurate with aircraft crossing the runway threshold within two or three seconds of schedule (according to Qantas).

In the not-too-distant future, technical experts advise that a system can be envisaged where there is an airspace 'box' around each aircraft, situational awareness between aircraft, programs for collision avoidance and risk alerts, and procedures for handling emergencies when an aircraft departs from its intended flight path. Nature provides examples of such self-separation: a school of fish moving in unison, or a dense flock of birds, neither operating under central 'control', but depending on sensors, intelligent information processing and individual decision-making.

Some believe that these new technologies will resolve the delay problem, and improve safety by up to tenfold. Governments are funding future technologies and procedures through SESAR and NextGen, but all this is probably 15 to 20 years away. Consequently, this new paradigm of air traffic management cannot be relied upon to resolve delay problems that are happening now, and will only grow worse under Open Skies. Is there a way that governments can put in place the drivers for ANSPs to significantly improve ATM performance in the interim?

A BLUEPRINT FOR ATM REFORM

The answer is yes. It is within the purview of states to enable their ANSPs to improve performance and to respond with agility to changing customer requirements in a freer marketplace. It is also possible to lower costs of ATM significantly, advance the application of technology, decrease safety infractions and reduce emissions from aircraft through reduced fuel burn. We know this to be possible because several countries have already accomplished these performance improvements through organizational reform. Governments in many countries have liberalized the provision

of national air traffic services by providing commercial freedoms to the ANSP organization, while ensuring safeguards against abuse of monopoly power. The general term for this policy is 'commercialization'.

A recent study, completed by the author with the assistance of three universities,⁴ documents the performance improvements achieved and the institutional reforms needed to enable an Air Navigation Service Provider to improve performance significantly. Until this study was undertaken, there were only opinions and unsubstantiated claims either for or against ATM commercialization; the study is an academically robust investigation of the performance changes achieved by "commercialization".

To qualify as "commercialized" in this study the prerequisite was to have financial autonomy from the state budget. This has been done either through special provisions for a government department or agency (access to capital markets, collecting user fees), setting up a government corporation, establishing a public-private partnership partly owned by government or by transferring assets and staff to a fully privatized not-for-profit corporation (there is no precedent of a privatized for-profit corporation for national ATM services). The policy objective in each case was to enable ATM to improve performance and meet customer expectations. Ensuring that each ANSP had financial autonomy as a baseline meant that the researchers were able to look how other aspects of the governance structure affected performance.

The study examined the performance of ten commercial ANSPs in Australia, Canada, France, Germany, Ireland, the Netherlands, New Zealand, South Africa, Switzerland and the UK over the period 1997 to 2004 and compared that to the benchmark of a government department, the Federal Aviation Administration in the US. To ensure objectivity, the study was funded by several organizations including grants to the universities, and contributions from airlines, governments including the European Commission Office of the Single European Sky and the ATM providers. All ANSPs in the study were willing participants. An Advisory Committee of fifteen senior aviation and academic officials oversaw the study including a former Administrator of

⁴ McDougall, Glen and Roberts, Alasdair: "Commercializing Air Traffic Control: Have the Reforms Worked?" Canadian Public Administration 51, no. 1 (2008).

the FAA, a Group Director from the Civil Aviation Authority of the U.K. and, as an observer, the US Government Accountability Office (GAO).

Three bodies of work were completed: legal descriptions of the governance structure of each of the commercial ATM organizations; quantitative analysis of data; and a synthesis of over 200 full circle interviews including ANSP managers, government regulators, transport policy officials, customers, suppliers, unions and the military. The conclusions have been accepted as definitive by a number of international bodies including ICAO and the World Trade Organization.

The quantitative analysis made use of normalized trends to allow comparisons of data between countries over the period under review. It did not attempt to make absolute international comparisons by adjusting data for the social, environmental and economic differences between countries. The study, by contrast, examines the effects of commercialization reforms on the behaviour of each ANSP and the results achieved within the context of each country.

The study found that, to varying degrees depending on features of the governance structure, these commercialized ANSPs have improved safety, implemented new technology, reduced cost and improved service levels while maintaining or improving military cooperation. A review of some of the findings follows⁵:

Figure 1 shows the impact on safety. The study examined the number of serious safety incidents per Instrument Flight Rule (IFR) movement that were attributable in whole or in part to air traffic management. (An IFR movement is a measure of commercial traffic volume.) The trend data show a general decrease in 1997-2004 for most commercial ANSPs, after adjusting for changes in reporting reliability and methodology. Note that the FAA did not provide a time series of safety incident data: reliability of safety reporting has been a problem in that organization⁶. To note also is

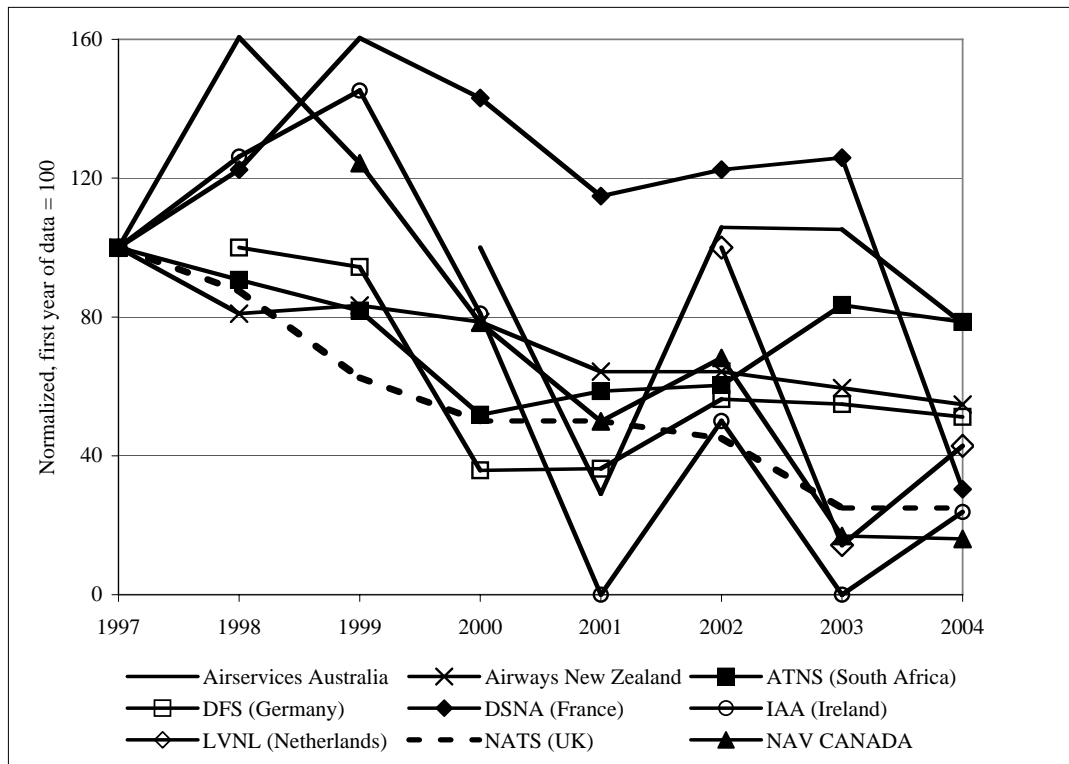
⁵ "ATC Commercialization Policy: Has It Been Effective?" MBS Ottawa, January 2006 available At www.canso.org

⁶ Audit of Controls Over the Reporting of Operational Errors, Office of Inspector General, US DOT September 2004; see also the testimony of Dr. Gerald Dillingham, Government Accountability Office, 13 February 2008, GAO-08-481T

that the EUROCONTROL Performance Review Commission has reported that safety reporting is still a problem in many European ANSPs.

The interviews confirmed that, with one exception, safety culture improved after the commercialization reforms and the establishment of effective, independent safety oversight (the lessons learned with the exceptional case are documented in the report). Some ANSPs such as NAV CANADA maintained that the safety culture improved significantly with commercialization, as it became a business imperative. Generally there has been more reliable reporting, greater risk awareness and stronger safety management since commercialization.

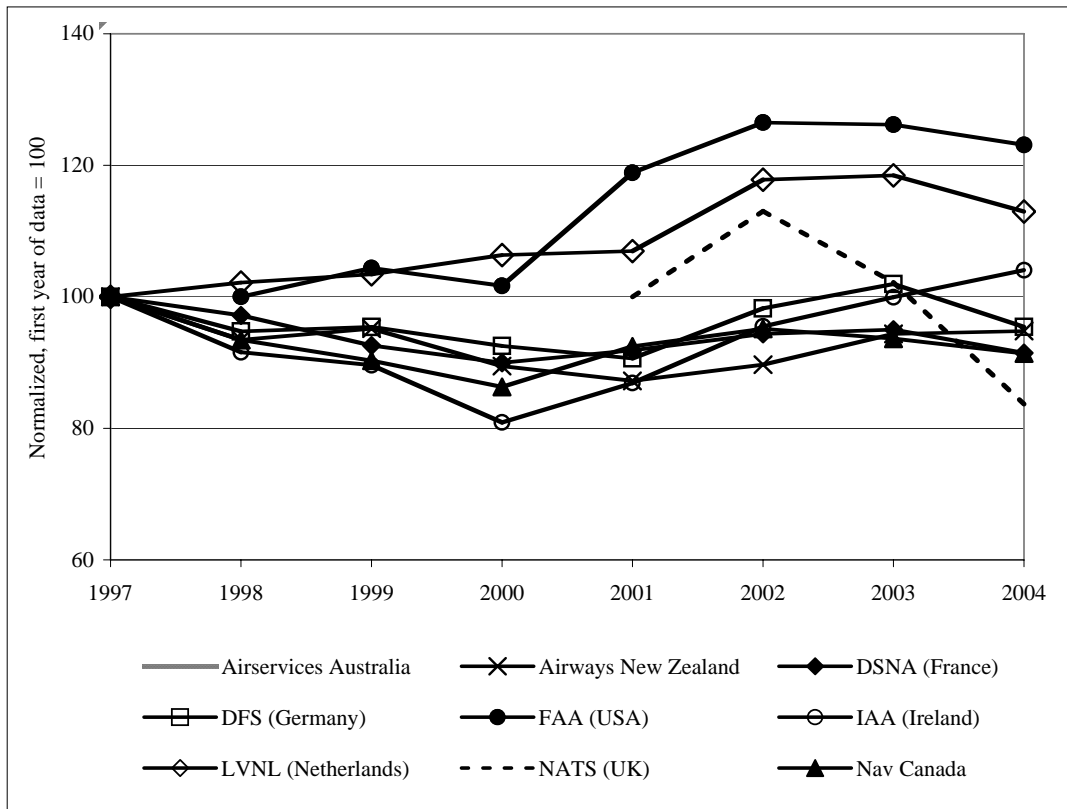
FIG. 1: ATM-RELATED SERIOUS SAFETY INCIDENTS PER IFR MOVEMENT



Costs were reduced in many of the commercial ANSPs as shown in Figure 2. Here is where differences in governance structure affect the ability of the ANSP to consolidate operations, reduce overhead and lower costs of procurement. There is

over a 30 percent gap in the trends in cost efficiency between the FAA and a number of commercialized ANSPs.

FIG. 2: TOTAL ANNUAL ANSP COSTS BY IFR MOVEMENTS (Constant Currency)



With respect to procurement, commercialization has enabled tight discipline on capital expenditure. Indeed, several of the commercialized ANSPs *decreased* their capital expenditures by over 50% in the period under study while modernizing technology whereas in the US, costs of procurement increased dramatically while modernization efforts faltered. For example, despite the increase in investment by the FAA, customers complained that aircraft were being retired with technical equipment that had never been used. FAA officials commented that over 15% of its annual capital budget was ‘earmarked’ by Congress, resulting in equipment often sitting unused in warehouses. In contrast, according to MOT officials in New Zealand, the commercialized ATM organization replaced major equipment for a third the cost of previous proposals to the Treasury.

The study found that typical problems in a public service domain, evident in the FAA today, included: over-development and customization of requirements that did not take advantage of off-the-shelf solutions; duplicate procurements of systems with similar functionality; political direction that resulted in unnecessary procurement, construction and operations; continual amendment of technical specifications that caused delays and cost overruns; cumbersome and lengthy approval processes; diffused accountability where management is only partly in charge; and little client input to help establish priorities.

Commercialization has greatly improved performance according to most government officials interviewed for the study. For example: “A government department would ‘never have had the money, drive or customer focus’ to implement new systems so quickly” (MOT New Zealand). The investment community is likewise impressed with the results: “Each [commercial ANSP reviewed] has been able to leverage its strong business profile and government oversight to accelerate investment” (Standard & Poor’s).⁷

With respect to customer service, there has been a major improvement in some organizations where there is structural independence from government (exhibited by some government corporations with appropriate institutional features, and by the more privatized models). Comments from airline and business aviation representatives summed up the change following commercialization reform: “I think most of us believe that the system is more service-oriented and certainly has introduced innovative technology ahead of what likely would have occurred under a government-managed system.” (Canadian Business Aviation Association) or “Undoubtedly one of the greatest benefits of [commercialization] ... is that there never has been any confusion over just who precisely the customer is.” (Air New Zealand).

From the military perspective: “Commercialization in Australia has been a ‘major success’; there is no question that countries should go down the commercialization

⁷ “Peer Comparison: Global Air traffic Controllers” Standard & Poor’s, June 2005

path for air navigation services, provided the government pre-thinks what to do in a national emergency” (Royal Australian Air Force). The Canadian military is similarly enthusiastic about the positive effects of ATC commercialization and in 2006 presented NAV CANADA with an Award for outstanding achievement in the field of civil aviation.

The impact on labour has been minimal. The staffing levels for controllers in most countries have remained constant or increased. This is to be expected, as even with consolidation, the number of airspace sectors controlled and hence the number of controllers needed, remains fairly constant, all else being equal. In fact some commercialized ANSPs increased the number of controllers because they were able to offer more competitive salaries and benefits to fill shortages.

The positive benefits to controllers from commercialization have been modernized and pleasant working environments and earlier adoption of new technology. According to a former union official with the Irish Aviation Authority: “From a trade union perspective there was no real impact from commercialization except that the pension fund was under-funded [*by government at transfer*]; there were no negatives and no diminution of safety.”

The key ingredients for a successful reform have required structural independence from government, inclusion of customers in decision-making and effective safety oversight by a separate government regulator.

SAFETY, ENVIRONMENTAL & CAPACITY ADVANTAGES OF A LIBERALIZED GOVERNANCE STRUCTURE

The advantages of a liberalized ANSP to maintain safety and contribute to environmental emission reductions yet respond to increases in demand and changing traffic patterns include: greater freedom in recruiting, training and staffing controllers; rapid deployment of new technology; better flight efficiencies from better procedures and consolidated facilities; and more reliable safety reporting to increase risk awareness. Some examples follow:

- In Canada, when ATM was still a government function in the late 1980s, the training program had been stopped for air traffic controllers as a cost-cutting measure at the same time that market liberalization required more controllers to manage the increased traffic; this was resolved through a new governance structure for the Canadian ANSP independent from the government budget.
- NAV CANADA developed a converging runway approach aid that increased throughput at Calgary airport by up to 30% in poor visibility conditions while enhancing the margin of safety; as a bonus, the capacity at the airport increased sufficiently that construction of an additional runway was deferred.
- In the US, in one of the few examples where the FAA has been able to consolidate facilities, a new Potomac Consolidated TRACON (terminal control) has amalgamated five regional facilities under one roof; this has provided economies of scale and elimination of fiefdoms that have resulted in new flight approaches and departures that save significant amounts of fuel, and hence aid the environment.
- Real-time flight path approvals that take advantage of wind shifts can reduce fuel burn significantly and reduce emissions; such Flex-tracks were implemented by Airservices Australia several years ago for trans-Pacific flights.

Many experts interviewed for the study believed that, once staffing issues were resolved, technological innovation held the most promise for reducing delays caused by ATM. The application of new technology can be advanced through the establishment of more agile ATM organizations with strong customer focus and private sector style incentives. They can bring to the table a drive for performance that government departments find difficult to match. They also make ATM a priority as it is their sole business whereas governments must deal with many other issues which have higher priority than air traffic control.

There is ample proof that a liberalized ATM governance structure provides advantages over a government department in increasing capacity while enhancing safety and reducing environmental emissions. By de-politicizing air traffic management and separating the 'rowing' from 'steering', liberalized ANSPs can

focus on customer service while government can concentrate on safeguarding the public interest through safety, economic and airspace regulation, environmental laws, and other means.

APPLICATION TO THE USA AND EUROPE

The US-EU Open Skies Agreement makes it even more imperative to liberate the ATM component of the aviation value chain in the US and Europe; otherwise ATM becomes the weakest link, impeding benefits from market liberalization. In economic terms, liberalization of one link in the value chain is ‘necessary but not sufficient’ for optimum value; this is applicable here. Policy needs to be integrated to address all aspects of the aviation sector.

USA

As noted in a new book by professors Clint Oster and John Strong on global ATM management reforms⁸: “Concerns about FAA’s persistent difficulties in modernizing and expanding the nation’s air system to accommodate growth in air travel have given rise to a series of calls for reform of the FAA.” In 1986 the National Academy of Public Administration recommended a government corporation for the FAA. This was followed in 1988 by a Presidential Commission on Aviation Safety also calling for reform, the National Commission to Ensure a Strong Competitive Airline Industry in 1993, and the National Civil Aviation Review Commission in 1997. These commissions found that the US federal budget process for the FAA was ‘crippling’, that budget procedures were “inappropriate for a system controlling commercial operations that needs to be driven by demand for services”, and that there “were too many cooks” involved in ATM decisions, including Congress, which diffused accountability.

There were also attempts by US Administrations to introduce governance and financing reforms, most notably by the National Performance Review under Vice-President Gore to create a government corporation ‘USATS’. In every case, the US

⁸ “Managing the Skies”, Oster, Clinton V. and Strong, John S., 2007, Ashgate Publishing

Congress defeated attempts for substantial reform asserting that air traffic control should remain under Congressional oversight. Congress did allow changes to the FAA's personnel and procurement authorities and a fixed term for the FAA Administrator, but these have not addressed the fundamental problems that prevent the FAA from delivering a high level of performance. Those interviewed during the MBS Ottawa study claimed that the Congressional objections have been the result of intense lobbying by groups wanting to retain the current order of things, including recreational aviation, labour and contractors. Many receive advantages from the status quo and to date there has not been a unified call by the aviation community for reform.

In the US case it is obvious that reform of the FAA is needed to improve ATM performance. The Tennessee Valley Authority is a government corporation that was established in 1933 to address similar problems. President Roosevelt at the time asked Congress to create "a corporation clothed in the power of government, but possessed of the flexibility and initiative of a private enterprise." However, until some members of the aviation community put national interests above their parochial concerns, and until there is consensus on the way forward, it is doubtful that there will be a political solution for the FAA such as was found for the TVA.

Europe

In Europe, there has been a patchwork of governance structures, some going quite far in liberalizing air navigation (e.g. the UK Public-Private Partnership NATS) and others remaining as a department (e.g. France) plus several government corporations (such as DFS) or agencies. Hence, application of corporate structures throughout European ANSPs will facilitate greater cooperation between states by ensuring that all providers have a similar institutional framework and business model. A CEO of a European ANSP advised that currently it cannot be expected that a state agency or department can cooperate effectively with a privatized NATS or DFS; in his view, 'the business drivers are just too different for that model to be successful'.

In Europe, a level playing field could be achieved if more states adopted a commercial approach to air traffic control but there will still remain too many

providers in a small geographic area, some with very small Area Control Centres. Thus there could be thirty or forty ANSPs in Europe all working to the same business model but still experiencing coordination difficulties and diseconomies of scale. In addition to higher direct costs, estimated by the EUROCONTROL Performance Review Commission at between 880 million and 1400 million euros annually,⁹ there are environmental costs from retaining this patchwork of providers through sub-optimal flight paths and excess fuel burn. Consequently, it can be stated that although similar corporate governance structures throughout Europe are necessary to create a level playing field, this will not be sufficient to address the costs, inefficiencies and environmental consequences of fragmentation.

The Single European Sky (SES) initiative by the European Commission is intended to address this fragmentation problem. However, progress with the SES has been very slow¹⁰. Interviews with some of the original working group members on the SES regulations commented that individual states are uninterested in the single sky vision and are not taking any initiatives for institutional change. At an ‘experts’ day’ organized by EUROCONTROL in 2006 to help assess the progress of the SES, a common theme was the lack of ‘urgency’ by states to introduce governance changes consistent with the vision of the Single European Sky.

A High Level Group (HLG)¹¹ studied the progress of the SES in 2007 and made a series of recommendations. The forward to the report by Mr. Jacques Barrot of the European Commission stated: “It is about time to overcome the patchwork structure and go for a consolidated air traffic control system offering seamless services. The central goal is **performance**. Performance can only be achieved by replacing the overlapping regulatory structures, heritage of the past, by one single Community framework.” One of the recommendations of the HLG was to develop proposals for the ATM governance structure in Europe post the SESAR Joint Undertaking (2013). The High Level Group also reported that the greatest potential for reducing

⁹ “The Impact of Fragmentation in European ATM/CNS”, EUROCONTROL April 2006

¹⁰ “Evaluation of the Impact of the Single European Sky Initiative on ATM Performance”, Eurocontrol Performance Review Commission, 21 December 2006

¹¹ The report of the High Level Group for the Future European Aviation Regulatory Framework, July 2007

environmental emissions from aircraft in Europe was through improved ATM enabled by a Single European Sky.

To date the SES has relied on ANSPs to provide a bottom-up solution. Increased cooperation is evident, and there has been a tendency to migrate towards regional clusters. For example, the ANSPs have developed multi-state Functional Airspace Blocks, or FABs, which will improve interoperability but many stakeholders are not certain if these will bring significant benefits to customers. Some have emphasized the danger of FABs as adding layers of matrix management with a resulting loss in accountability and liability issues. Also, these are long-term developments, which may or may not move in the direction of consistent governance structures.

One might think the current ANSPs in Europe will resist any attempt at consolidation to preserve their existence. However, the ANSPs in Europe understand that some of them 'will be on the menu' to reduce the number of ANSPs. One CEO advised me that he doesn't believe that the ANSPs are to blame for the lack of progress under the SES; contrarily, he has observed a lot of ambition amongst his colleagues to make it happen.

Although the ANSPs may try to implement the SES, there is likely to be political opposition. Waiting for states to issue a concession for ATM or for ANSPs to merge may be delayed politically unless there are mechanisms to protect employees and location of work; otherwise a country risks giving up jobs to a neighbouring country that runs their airspace for them. In addition, the governance of a merged organization is likely to favour the dominant ANSP, both for jobs and board governance, if the partners are of unequal size. This has the aura of one state dominating another's airspace. In practice, either approach may prove difficult politically and is the reason at least two attempts at consolidation have been shelved. Consequently, if a state agrees to a concession or merger, political necessity may require that existing personnel and facilities be operated by the new contractor, providing little economic advantage and retaining most of the problems with fragmentation.

Therefore, if the EC, under the forthcoming SES II Regulations, relies on the ANSPs to implement the SES by issuing performance incentives, but without making

significant institutional change at the political level, then only incremental improvements can be expected, not the significant change needed to meet Open Skies. As much as the ANSPs may be held accountable by the Commission for fulfilling the vision of the single sky, the authority for reform remains political and is a state prerogative. There is a disconnect between the bottom-up operational and technical approach by the providers and the top-down establishment of an institutional framework at the political level. The Commission, under SES II, may, therefore, need to consider other enablers and innovative institutional processes to provide simultaneous market liberalization and de-fragmentation of ATM provision.

A third way, other than concessions/mergers and FAB cooperation, is to facilitate regional corporations comprising clusters of ANSPs for the provision of ATM. The business entities could be not-for-profit corporations with guaranteed monopolies for particular services, and a governance structure that encourages efficiency, as with NAV CANADA. Other multi-state arrangements are possible such as a public service organization, a government corporation with distribution of shares between states with legislated protections against political direction such as New Zealand, or a multi-state PPP (e.g. UK-Germany). The corporate structure can vary according to the needs or the states, but the business drivers should be the same. A well-designed regional corporation, franchised to deliver air traffic services for several states, and using existing staff and assets, would be a pragmatic solution because it de-politicizes the ANSP which can then address fragmentation within its 'cluster'.

This approach would leverage some of the existing regional efforts to improve cooperation such as FABEC, MOSAIC, Blue Med and the Nordic/Irish common airspace. This greatly reduced number of ANSPs in Europe would share corporate status making cooperative agreements feasible. Together they would represent a level playing field for Europe. Establishing such regional corporations would not interfere with other recommendations of the HLG such as unbundling of services. But most importantly, such an arrangement might be acceptable to management, labour, customers and national governments as a pragmatic solution with limited compromise.

There would be practical problems under any regional ANSP configuration such as wage disparities, different pension contribution and benefit schemes and trade union representation. However, experience has shown that such problems can be overcome if there is a will to resolve these difficulties. A 'political champion' may be needed to drive the reform, as happened in several other countries.

A regional corporation should be free to develop a business case, with its social partners, to decide on investments, introduce new procedures or technology, or streamline and reduce its costs including consolidation or relocation of facilities, without political direction to retain the status quo. Actually, this is the identical problem in the United States where Congress has often prevented attempts by the FAA to consolidate facilities in that country. In both cases there needs to be a way to provide distance for elected representatives from the corporation's business decisions and this may require a liberalized governance structure other than a government corporation but still meeting labour concerns: i.e. a not-for-profit corporation of which NAV CANADA provides a successful example.

THE NOT-FOR-PROFIT MODEL

NAV CANADA is a private, non-share capital corporation that was developed by government, industry, unions and other aviation stakeholders to own and operate the air navigation system. It began operation in 1996 using existing personnel and the purchased assets of the Canadian government. It is a non-share capital corporation with a legislated monopoly free from competition and financed without equity primarily by user fees and bonds issued in the public debt markets.

It operates under special legislation¹² which specified the transfer of existing employees, assets, land and contracts from government to the new corporation. The legislation also defines the extent of its monopoly in air traffic services prohibiting others from providing similar services in Canadian airspace, sets out allowable areas of government direction provided there is compensation, and defines pricing principles that the corporation must follow subject to an appeal mechanism with the

¹² The Civil Air Navigation Services Commercialization Act, Statutes of Canada 1996, available online at <http://laws.justice.gc.ca/en/showtdm/cs/C-29.7>

Canadian Transportation Agency if a customer feels the corporation has breached these principles. The Act includes amendments to the Aeronautics Act to provide for safety regulation by Transport Canada.

The by-laws of NAV CANADA stipulate the composition of the Board of Directors and membership of the not-for-profit organization. The government appoints one of four Members, the others being appointed by NAV CANADA's unions, the commercial airline association and the business aircraft association. The Members appoint or remove board Directors according to a formula, comprising two thirds of the board positions. The board itself appoints the other five directors including the CEO. The full board chooses the Chairperson who cannot be the CEO.

The intent is to prevent any one group from having control of the board. This was the reason the Minister of Transport insisted on having three appointees: not to bring a measure of government control, but to balance the number of user-appointed directors. Also, appointments must be at arm's length to avoid conflicts of interest and to discourage directors from acting as representatives of their particular constituency. For example directors may not be elected officials, government employees or employees/directors of a NAV CANADA supplier, client, customer or (a recent amendment) a related trade association.

A stakeholder-appointed board brings sensitivity to the needs of the public, users and employees when discussing board business. Interviews and discussions with NAV CANADA board directors, management and member organizations confirm that directors do not act on behalf of their appointing bodies but in the best interests of the corporation as required by law. Stakeholders interviewed for the MBS Ottawa study were unanimous in identifying the board structure as a primary factor contributing to the corporation's success.

In Europe, application of the not-for-profit model bears consideration as it could provide a pragmatic solution to the difficulties in implementing the Single European Sky. Network Rail is a European example of a not-for-profit corporation, or 'not-for-dividend' company. This company manages the rail infrastructure in the UK. It was set up in 2002 and has a similar governance structure to NAV CANADA. The

Chairman of Network Rail, Sir John McAllister, stated in the 2006 Corporate Responsibility Report that: “Network Rail is a company ... owned by Members, not shareholders. Our Members do not have a financial interest in the company and the company does not pay any dividends. This structure ... allows us to put our stakeholders at the very core of our thinking.”

Some of the trade unions have suggested under MOSAIC¹³ that multi-state entities be formed, but under a European public service. It appears the concern is that there be no profit motive to jeopardize safety and that the new entity not be exposed to competition. The not-for-profit model satisfies both these criteria while liberalizing the ANSP to achieve high performance.

As Nelson Mandela said: “There is no institution in the world that is without weaknesses.” Each of the choices for an ATM corporation has its pro’s and con’s. A not-for-profit corporation is dependent on borrowings through loans or bonds, requiring the company to maintain financial reserves to weather downturns in traffic, but it is the most independent from government of all structures studied. The UK government chose a strategic partner as co-owner of the NATS public-private partnership but that partner put in very little equity for its share of the company and refused to provide an equity cushion during a financial crisis, resulting in serious financial difficulty for NATS; the benefit is that a PPP is partly shielded from government direction. With a state-owned corporation, the government has deep pockets to survive any financial crisis, but the company is the least independent of the three corporate types and there is always the danger that government can change its degree of control; this has happened in two countries in the MBS Ottawa study where new Ministers re-asserted government control over the ATM corporation. Given the strong need for de-politicization in both the US and Europe, the most independent corporate form may be required, meaning that the not-for-profit corporation should be given serious consideration. The NFP form still involves government as a Member of the corporation, but provides the strongest level of business freedom, i.e. “..a corporation clothed in the power of government but possessed of the flexibility and initiative of a private enterprise”.

¹³ www.project-mosaic.eu

CONCLUSION

With the increase in traffic expected by market liberalization, the restraints of the existing structure for ATM will become more apparent, with increased delays and traffic restrictions. The message to governments is that it is possible to greatly increase ATM performance through structural reform. Governments in the US and Europe can put in place the institutional framework for ATM that will enable the drive, customer focus and freedom needed to improve performance enough to meet the needs of the next two decades with its projected 300% increase in air traffic. This requires a willingness to put aside parochial interests in favour of national or supra-national needs, not only at the political level, but by industry, aviation groups and employees.

Europe can pressure the ANSPs to perform better, but this will not provide the leap in performance that setting up liberalized institutions will do. States can act in two steps – create the level playing field first, then consolidate ANSPs. But this will take years. By designing multi-state ANSPs now that act according to a business model, much less time is needed. This translates to billions of dollars in economic advantage.

It is said that one cannot cross a chasm in two small steps. The incremental, laissez-faire approach to ANSP reform may result in slow progress in the improvement of ATM performance in both the US and Europe. Hence there is an urgent need for governments, industry and labour to jointly cooperate to find a pragmatic solution for new ATM institutional frameworks so that Open Skies can achieve its goals.

BIOGRAPHY

Glen McDougall is President of MBS Ottawa Inc, a Canadian consulting firm specializing in governance of air traffic management organizations. He is a Senior Fellow at the School of Public Policy of George Mason University in the United States and an Academic Fellow with AirNeth in the Netherlands. He is a former Director General with the Government of Canada.

Mr. McDougall recently completed a major international research study, "Air Traffic Control Commercialization Policy: Has It Been Effective?" with the cooperation of George Mason University, the Maxwell School of Syracuse University and the McGill Institute of Air & Space Law. The study has achieved worldwide recognition as setting the benchmark for the organization of air navigation services. Mr. McDougall received an award from the Air Traffic Control Association in Virginia for the best technical writing of 2006 for this study.

While in the Canadian government, he managed the commercialization of Canada's air traffic control system and the establishment of NAV CANADA, the first privatized air navigation service provider in the world. Mr. McDougall holds an M.Sc. in Economics from the London School of Economics (1983) and a B.A.Sc. in Mechanical Engineering from the University of Toronto (1971).

He can be contacted at: PO Box 932, Almonte, ON, Canada K0A 1A0
Email: glen.mcdougall@mbsottawa.com
Tel: 1-613-256-7936
Fax: 1-613-256-8361