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NAV CANADA

A MODEL FOR COMMERCIALIZING PUBLIC ENTERPRISES



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By Robert Poole, Jr. and Viggo Butler

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NAV CANADA – A MODEL FOR COMMERCIALIZING PUBLIC ENTERPRISES

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INTRODUCTION

The search for optimal models of offering public services has its occasional successes. Notable among these in the last decade are reforms in the rules that govern public transportation. Deregulation and privatization of the airlines, airports, railways and ports in Canada – although not without hiccups and unexpected consequences – have produced measurable benefits. Millions more people flew, the CNR became efficient and profitable, and the Port of Churchill was reborn. One of these success stories is the agency that handles air traffic control in Canada, Nav Canada.

NavCan's transformation began with a new policy of commercializing a significant portion of Transport Canada's assets, first announced by Transport Minister Doug Young in the summer of 1994. His plan to privatize the air traffic control system took shape the following spring. It took its direction from the experience in New Zealand, which sold its counterpart in 1987 and subsequently enjoyed lower prices and more efficient service. The federal government also wanted to shed the burden of a \$200 million annual subsidy to the enterprise and a computer purchase plagued with delays and cost overruns. The sale netted the treasury \$1.4 billion. Airlines, business aircraft owners, pilots and air traffic employees shared the new company's ownership. Control of the new company was shared by a consortium of airlines, business aircraft owners, pilots and air traffic employees and took effect on November 1, 1996.

Air traffic management is the type of function described as a natural monopoly, where the benefits of a competitive provision of the service are not possible. In such cases, the debate turns to the optimal model for making the monopoly perform well. Separating its operation from direct political control and making it subject to the rigor of profit and loss incentives is a policy option with a successful track record. In its new form, NavCan quickly proved itself another salutary example. By the fall of 1999, it had increased its efficiency by 32%, lowered its charges to airlines by 33%, increased its average salaries by 33% and shed 14% excess managerial and administrative staff.

Moving Nav Canada into the commercial sector has improved its performance, lowered its costs and prices, and transformed the agency into a modern, performance-based company. Its unique structure is cited as a model to be emulated as other countries seek to obtain objective values inside a natural monopoly.

In this policy series paper, Robert W. Poole, Jr. and Viggo Butler of the Reason Public Policy Institute discuss the transformation of NavCan into a commercialized enterprise and recommend a similar approach for the United States.

Dennis Owens – Senior Policy Analyst
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EXECUTIVE SUMMARY

Over the past 15 years, nearly two dozen countries have commercialized their air traffic control (ATC) systems, as self-supporting government corporations, as private nonprofit corporations or as regulated, for-profit corporations. We strongly recommend the nonprofit corporation approach, as implemented successfully in Canada in 1996. Since it took over ATC operations, Nav Canada has speeded up modernization, dramatically increased efficiency and productivity, and cut user fees by one-third.

The most important feature we have adapted from Nav Canada is the concept of a stakeholder board. This approach ensures that the different interests of, say, major airlines, low-fare airlines, regional airlines, cargo carriers, corporate jets, air taxis, and light plane owners are all taken seriously in the corporation's decision-making, without any of these interests being able to dictate to the others.

Of crucial importance is a workable system of ATC fees and charges. Drawing on international practice, as well as guidelines from the International Civil Aviation Organization, we recommend replacing most current aviation excise taxes with a simple weight-distance fee structure similar to current practice in Canada and Europe, but modified to take into account operations at severely congested airports. Overseas ATC corporations have achieved cost savings of about one-third, which have been passed along in the form of lower user fees.

ATC CORPORATE STRUCTURE AND GOVERNANCE

A. The Overseas Experience

Over the past 15 years, nearly two dozen countries have corporatized their air traffic control systems, including Australia, Canada, Germany, Ireland, New Zealand, South Africa, Switzerland, Thailand, and the United Kingdom. All of these ATC corporations operate on commercial principles, to a far greater extent than do typical government corporations. At a minimum, these commercial principles include the following:

- Keeping their books in accordance with generally accepted accounting principles (GAAP);
- Being governed by a corporate-type board of directors;
- Borrowing from the private capital market;
- Supporting themselves via fees charged to users.

The International Civil Aviation Organization (ICAO) has long supported ATC corporatization, which it terms the creation of “autonomous authorities.” ICAO has published extensive guidelines on the organizational and financial aspects of setting up such organizations. Specifically:

By autonomous, ICAO means that the organization should have greater freedom from the government in conducting its financial affairs, infrastructure funding, etc., and it should be self-financing, subject to the usual business taxes, and be required to seek a return on capital. Importantly, it should still be regulated by the government, and encouraged to be as competitive, efficient, and cost-effective as any other commercial business. Based on the empirical evidence so far, ICAO believes that such autonomous air navigation service providers are likely to be more efficient, more dynamic, and more business-like than their government-run counterparts, and more attractive to banks and other lenders.

ICAO specifies that an autonomous authority should have financial and managerial autonomy from the government. This means that it should finance its operations through user charges and any other revenues it may generate from its operations, be free to access national and international money markets to fund major infrastructure investment, and have the authority and flexibility to respond to market forces when it comes to manpower and general management policies.

We can learn a great deal about governance issues from a closer look at these overseas ATC corporations.

B. Board of Directors

1. Appointment

In those countries whose ATC corporations are government-owned (e.g., Australia, Germany, Ireland, New Zealand, South Africa, and the United Kingdom), the government appoints the board members. By contrast, in Canada, Switzerland, and Thailand, whose ATC corporations are partly or entirely private, nonprofit entities, the board is self-selecting, in accordance with the stakeholder representation provisions of the corporate charter (which was approved by the government in question). In both types of model, the corporate CEO is selected by the board, not by the government.

2. Airline Representation

No official airline representatives sit on the boards of the government-owned ATC corporations. By contrast, Nav Canada, Swiss Control, and Aero Thai

are set up essentially as stakeholder cooperatives rather than as government corporations. The board of each is therefore designed to represent the various constituencies or stakeholders involved in air traffic control—e.g., airlines, general aviation, airports, unions, and the government (in its role as a user of the system). Hence, board members representing airline interests are among the positions provided for in the corporate charters of these ATC corporations.

3. Stakeholder Representation

As a non-share but stakeholder-controlled nonprofit corporation, Nav Canada has a 15-member board of directors. Ten positions are spelled out by the corporate charter to represent stakeholders, as follows:

- Four appointed by the Air Transport Association of Canada;
- One appointed by the Canadian Business Aircraft Association;
- Two appointed by Nav Canada bargaining agents (unions); and
- Three appointed by the government.

To further ensure that the interests of Nav Canada are served, these board members cannot be active employees or members of airlines, unions, or government. These 10 members select four independent directors, and those 14 then select the CEO, who becomes the 15th board member.

C. Government Oversight

Generally speaking, the government-owned ATC corporations are responsible to the relevant cabinet minister(s), generally the transport minister. To some degree, this gives that official a dual role—as both principal (or sole) shareholder and as regulator of the corporation, on matters of policy. In most countries the finance ministry has a monitoring role (and in New Zealand is the sole shareholder in the government ATC corporation).

The most autonomous of the government corporations is Airways Corporation of New Zealand. Its corporate charter is called the Statement of Corporate Intent; it defines the scope and purpose of the business, in order to minimize political interference in its management and operation. The government is the sole shareholder (with the shares held by the finance ministry), and the board is expected to set policies in accordance with the government's interest as a "rational shareholder." The company is subject to New Zealand's freedom-of-information act and to annual outside audit by a major accounting firm. It is also subject to once a year scrutiny by a committee of the House of Representatives, which reviews the Airways annual report against the previous year's published objectives.

Nav Canada is the most autonomous ATC corporation, with no government ownership (but with three out of 15 board members representing the government). Air safety regulation remains the responsibility of the government (Transport Canada). The enabling legislation spells out certain other areas in which its behavior is regulated, including specific principles to which user fees must conform. Specifically, it must give 60 days notice of any proposed:

- New or revised fees and charges;
- Reductions in facilities; or
- Material changes in services.

Nav Canada is required to consult with users and other affected parties prior to making modifications with respect to fees and charges. Users may appeal the company's decision to the Canadian Transportation Agency under certain specified circumstances. With respect to services, users can make representation to Transport Canada if they are concerned that Nav Canada's proposals would adversely affect air safety. More stringent provisions apply to the possible reduction of designated services to remote and northern regions of the country.

D. Economic Regulation

Air traffic control corporations are generally set up as legal monopolies, on the same rationale traditionally used for such services as local water and electricity distribution. In those fields, practice has included three alternative means of protecting consumers from possible monopoly pricing and/or other exploitation, depending on the type of organization selected:

- Setting up the enterprise as a government corporation, which is presumed to be operating in the public interest and hence is not externally regulated;
- Setting up the enterprise as a nonprofit user cooperative, in which the shared interest of users in low prices and low costs, consistent with quality service, is seen as a sufficient safeguard; or
- Setting up the enterprise as a for-profit company, subject to (1) a long-term franchise and (2) rate or profit regulation.

Since the government-owned ATC corporations are not investor-owned, for-profit companies, their governments (with the exception of South Africa) do not make use of explicit rate regulation. Canada and Switzerland follow variations of the user cooperative model, in which it is presumed that the shared interests of the stakeholders will serve to prevent monopolistic

exploitation of ATC users. Canada has also legislated a comprehensive set of charging principles as further protection for users.

But each country that has created an ATC corporation backs up this theoretical harmony of interests with government oversight mechanisms. Generally, these mechanisms include one or both of (1) mandatory consultation with users, and (2) appeal to the relevant government oversight agency.

1. Mandatory Consultation

As noted previously, Nav Canada is required to notify and consult with users about proposed changes in rates and services. Germany's DFS is not required to consult, but has chosen to do so in the interest of good relations with users. Once a year DFS invites users to a workshop to discuss plans, charges, and other current issues. Airways Corporation of New Zealand does not have a legal requirement for consultation, but has entered into a memorandum of understanding with its airline customers, covering the consultation process, its investment program, and its profitability. It has also adopted an industry-agreed weighted-average cost of capital and uses EVA (Economic Value Added) to self-regulate the returns from its monopoly services; excess EVA is returned to users as fee reductions in subsequent years.

2. Appeal to Government

Air Services Australia has no explicit rate regulation, but the transport minister may reject proposed rate changes within 30 days, generally in response to user objections. In extreme cases, the minister may refer proposed rates to the Prices Surveillance Authority, the Australian antitrust agency. Similarly, in the U.K. rates proposed by NATS can be referred to the Competition Commission (formerly known as the Monopolies and Mergers Commission).

Germany's DFS is not subject to any formal appeals process, but the Transport Minister has the final say on its rates. Each year DFS presents its preliminary cost estimate for the following year to the transport minister, who then sets the terminal charges and (in collaboration with Eurocontrol) the en-route charges.

New Zealand's government has adopted the principle of "light-handed regulation" for all public utility-type enterprises. Under this approach, there is no formal regulation of the rates charged by such enterprises, but they may be appealed to the Commerce Commission and ultimately to the courts.

In addition, should the “light-handed” approach be judged to be not working, the transport minister is empowered to create a formal rate-making process, based upon principles of cost and fee methodology disclosure. Thus far, in 12 years of Airways Corporation’s existence, no serious demand for such rate regulation has developed.

The enabling legislation for Nav Canada sets out a formal appeals process, under which users can protest rate changes to the Canadian Transportation Agency. The new rates can be appealed on the grounds of noncompliance with either the charging principles set forth in the enabling act or notification and announcement requirements. In Nav Canada’s first three and a half years of operation, there have been no appeals.

THE STAKEHOLDER-CONTROLLED NONPROFIT MODEL

Today, Canada provides the cutting-edge model with Nav Canada. It was created by legislation enacted in 1996, which was the culmination of several years of research and advocacy by Canadian airlines and other aviation user groups—including airline pilots, business aircraft owners, and other general aviation interests. The transfer took place in November 1996, when Nav Canada completed its initial financing and purchased the ATC system from the Canadian government. Charges for ATC services were introduced over a two-year period, during which time the existing ticket tax was phased out.

A detailed article in the *New York Times* reviewed the results of Nav Canada’s first two and a half years. In that period, NavCanada achieved the following results:

- Productivity increased from 258 flights per employee to 341 (32%);
- Airline costs decreased from \$528 million to \$355 million (33%);
- The average controller salary increased from \$43,316 to \$57,530 (33%); and
- Total employees decreased from 6,300 to 5,400 (14%), via reductions in management and administrative staff, not controllers or technicians.

Technological modernization has been accelerated, in part by making greater use of off-the-shelf systems and in part by streamlining procurement. While Nav Canada’s initial four years of operations are a short period, these early indicators are very positive.

ATC FEES AND CHARGES

A. Rationale for Pricing ATC Services

Inherent in ATC commercialization is the idea that users should pay the corporation for specific ATC services received. At the most fundamental level, this change from the traditional excise tax system is intended to create a meaningful customer-provider relationship, leading to a fundamentally different kind of corporate culture than existed previously.

Some degree of consensus has emerged within aviation circles on the importance of charging for ATC services. As recent advocates have pointed out, “customers pay for the system, but current payments bear little relationship to the particular facilities and services they actually use and whether they actually use them at busy or slack times.” The benefits of moving to a system of charges that reflect the costs of providing air traffic control services include:

- The ATC provider and its customers would receive better information about where new investment was most needed;
- The ATC provider would have better information about its performance; and
- There would be revenue and pricing effects to the extent that customers adjust their behavior—e.g., shifting some operations to lower-priced times or locations—which could reduce system costs and/or increase system capacity.

B. Charging Practices

Nearly all of the world’s developed countries charge for ATC services, whether or not they have commercialized their ATC systems. The International Civil Aviation Organization (ICAO) has long-established standards for such charges. ICAO standards call for charges for three flight regimes: terminal-area (landings and takeoffs), en-route, and overflight. ICAO states flatly that, “Only distance flown and aircraft weight are recommended ...as parameters suitable for use in a charging system.”

There are two reasons for the nearly universal adoption of weight-distance formulas. First, the parameters are readily available for each flight; both the distance from the take-off airport to the landing airport and the maximum gross takeoff weight of a particular aircraft are well known and already are incorporated into computer-based flight plans for use in billing. Hence, the administrative costs, both to customers and to the ATC provider, are very low. Second, weight and distance bear some relationship to both cost and

value of service—though admittedly only a crude approximation. Distance flown is roughly proportional to the extent of contact with ATC in both overflight and en-route (domestic) regimes. Weight is universally used as the basis for airport landing charges, in part because it is related to ability/willingness to pay—which in turn is related to the value of the service provided; i.e., a fully loaded 747 presumably receives more value from landing on time than does a Twin Otter. (Weight is also related to needed runway strength, extent of fire/rescue needs, and terminal size.)

The coalition of airlines, business aviation, and other parties that developed Nav Canada reviewed the ATC pricing systems in Australia, Germany, Ireland, New Zealand, South Africa, Switzerland, and the United Kingdom. All charge for overflight, en-route, and terminal-area ATC services, and all use some variant of the ICAO weight-distance principles. Based on this experience, they decided to adopt a weight-distance system for Nav Canada.

Nav Canada's system has been in full operation since March 1, 1999. The basic weight-distance formula applies to all jet aircraft over three metric tonnes. Aircraft weighing less than this amount pay a single annual charge for access to the system (C\$60 if less than two tonnes and C\$200 if between two and three tonnes). And propeller aircraft over three metric tonnes pay daily charges each time they use the system, on a sliding scale based on weight (though they have the option of paying the en-route and terminal charges applicable to jet aircraft, if they prefer). Furthermore, if such a propeller aircraft is used exclusively for recreational purposes, its fee is a flat C\$60 per year, regardless of weight.

C. Pricing System Criteria

What criteria should be used to develop the pricing system for an ATC corporation? Drawing on international experience, recent U.S. studies on ATC restructuring, and the reality of considerable resistance to direct charges in certain quarters, the following criteria are suggested:

- **Simplicity:** The charges must be easy to compute, use readily available information, and have a low cost of collection and administration;
- **Safety:** Charges should not be structured in such a way as to deter some users from making use of needed ATC services (e.g., weather briefings);
- **Efficiency:** Charges should encourage users to take into account the cost of providing particular ATC services, when deciding when, whether, and how much of those services to use;
- **Equity:** Two identical flights should pay the same—e.g., two B-737-300s flying between Miami and Philadelphia at the same time of day.

- Investment signals: The pricing system should indicate to the ATC corporation where additional (or fewer) resources are needed in the system;
- Fairness: On one hand, fairness argues for a long-term goal of people paying only for what they use (i.e., the eventual elimination of cross-subsidies). On the other hand, the principle of fairness must also recognize the element of willingness to pay—the principle on which airline ticket pricing systems are based.
- No double payment: The proposed fees and charges should replace the current aviation excise taxes, not add to or supplement them.

There are obvious tensions among these various criteria, requiring trade-offs in the development of a workable fees and charges concept. The kind of detailed, finely grained marginal-cost-based pricing systems desired by many economists would fail the tests of simplicity, safety, and feasibility. A system based strictly on allocated accounting costs would likewise fall short on simplicity, safety, fairness, and feasibility. An across-the-board fuel tax would be simple, but would fail the efficiency, investment, and (probably) feasibility criteria. Our strong preference is for an adaptation of the Nav Canada approach, in which a pricing system based on weight and distance is applied to all jet aircraft, with piston and turboprop aircraft paying annual or daily fees.

GENERAL AVIATION AND ATC

For thousands of people, flying is a major hobby and recreational activity. GA provides the training for many commercial pilots. Air taxi/commuter services and corporate aircraft provide air-access for business and cargo to small airports that are not served by scheduled airlines. And as our population grows, more suburban and rural GA airports become small commercial airports. In many ways, the private pilot/private plane community serves as the feeder and support base for the commercial aviation system. Thus, it would be counterproductive to cause harm to this vital component of aviation via an ill-considered user fee system that would make GA flying unaffordable. The challenge is to incorporate GA into a commercialized ATC system in a way that is fair to all parties and that maintains and enhances air safety.

The general aviation community has historically opposed proposals aimed at corporatizing air traffic control and correctly equated corporatization with direct user fees. That is because an integral purpose of the reform is to create a direct payment nexus between the users and the provider of air traffic services—and that means users paying fees to the ATC provider, not paying taxes to the government. But GA users fear that a shift from the

current fuel taxes to direct user fees would dramatically increase their cost of flying.

Other countries, which have corporatized ATC, have made special provisions for small-plane operators. Nav Canada charges single-engine piston aircraft under three tonnes a flat annual charge of between C\$60 and C\$200. Prop planes above three tonnes can opt to pay either a daily weight-based charge or the standard en-route and terminal fees applicable to jet aircraft. Unfortunately, because Canada's fuel tax has never been dedicated to aviation purposes, it was not reduced or eliminated when Nav Canada took over the ATC system, so GA users in Canada must now pay both user fees and the fuel tax.

A. Business vs. Recreational GA

The umbrella term "general aviation" serves to obscure important distinctions between two fundamentally different types of aviation activity carried out in smaller planes. Well over half of all GA flight hours are personal, recreational, and instructional. And nearly three-fourths of the GA fleet is single-engine piston. This broad majority of GA activity can be approximated by the term "recreational" flying. Most of this flight activity takes place outside of controlled air space. Most of it does not even make use of a control tower.

The other broad category consists of (generally larger) GA aircraft used for business and commercial purposes. Included here are both piston and turbine-powered planes, most of them multi-engine, which are owned and used by businesses, as well as planes available for hire as charters and air taxis. A much larger fraction of this segment of GA makes use of towered airports. Business jets (and many turboprops) make use of the full range of ATC en-route and terminal services.

While most countries with corporatized ATC systems make special provisions for recreational GA aircraft, nearly all countries follow standard ICAO charging principles for ATC when it comes to business GA aircraft (particularly jet-powered aircraft, which fly at the same altitudes and use the same services as jet airliners). A corporate Learjet in Canada pays en-route and terminal charges based on its weight and distance flown, just like those paid by its competition—either an air taxi Learjet or a commercial CRJ-100.

B. New Technology and General Aviation

The same new technologies that are being developed for airline “free flight” offer tremendous potential for improved safety, accuracy, and cost savings for ATC services to general aviation in coming decades. The microchip revolution continues to shrink the size and decrease the cost of avionics. Digital communications can transmit vastly more information to and from aircraft than voice. And GPS with ground-based augmentation will ultimately provide affordable precision-approach systems for GA airports.

The question facing all of aviation—GA as well as airlines—is under which kind of organizational and financing structure will these benefits be made available sooner and more affordably: under a federal bureaucracy or under the auspices of a stakeholder-controlled, customer-driven, nonprofit ATC Corporation?

It should be noted that a shift to free-flight technologies would replace the need for a whole raft of equipment that can add as much as \$25,000 to such a plane’s cost. Moreover, by providing cockpit displays of the positions of other aircraft, and of weather information, a free-flight ATC system would greatly reduce (and perhaps eliminate) the need for such old systems as manned FSSs and ground-based radar, thereby significantly reducing system (as opposed to per-plane) costs. These changes could lead to lower fees over time, as they led to a lower-cost ATC system.

These kinds of changes would revolutionize flying, giving pilots far more information and control, gradually shifting the role of ground-based controllers to traffic monitors and conflict-resolution managers, rather than controllers, per se. In this truly computer-based ATC system, GPS-derived position reports would be sent from all aircraft in the system to control centers and other aircraft in the vicinity. The ground-based computers would send navigational messages, via digital data link, to any plane that might be affected by another plane’s course. Those messages would be processed by the recipient plane’s on-board computer and linked directly to its autopilot.

The question for GA organizations and individual pilots to ponder is this: Under which future scenario is it more likely that these technological transformations will be implemented rapidly, smoothly, and at lower cost? Is this more likely to occur with a continuation of the American FAA, that has spent 20 years and tens of billions of dollars to modernize the ATC system—and yet still uses vacuum-tube-equipped radars, software written in the 1960s, and “new” mainframe computers that are no longer in production? Or is it more likely to occur under a stakeholder controlled “user co-op” similar

to NavCanada, on which GA organizations hold three board seats? As one point of reference, both the FAA and Nav Canada are implementing new software tools developed by NASA-Ames called the Center-TRACON Automation System (CTAS). In doing so, Nav Canada is accomplishing in three years what it is taking the FAA more than 10 years to do.

EMPLOYEE TRANSITION ISSUES

Shifting government employees to a commercialized, corporate environment requires careful planning and concern. On the one hand, employees possess the essential working knowledge without which the enterprise cannot succeed; moreover, many of them may have been frustrated by the constraints of operating within a government bureaucracy and will welcome the flexibility of becoming part of a customer-focused service business. It is essential that the transition plan reach out to these employees, dealing realistically with their concerns and issues, with the aim of retaining as many of them as possible.

On the other hand, most government agencies also contain some people who are comfortable with noncompetitive work and who will not be well suited to the new kind of corporate culture of a commercialized ATC service business. The transition plan needs to include fair and reasonable ways of easing these people out of the new organization and into either some other government job or to retirement.

Fortunately, a wealth of information has been amassed worldwide over the past two decades about making such transitions. During these years government enterprises worth over \$1 trillion have been corporatized or privatized. Nearly all faced the employee-transition question, with some making much smoother transitions than others. Among the relatively standard kit of tools used in successful transitions are the following:

- No-layoff guarantees;
- Lateral transition procedures;
- Outplacement assistance;
- Early-retirement buyouts; and
- Pension protection.

Nav Canada adopted several policies to ease the way for lateral transfers. The new management (which during its first three years downsized by over 1,000 mostly administrative and mid-management people) actively and successfully sought to transfer affected staff to other positions within government. A reciprocal pension transfer agreement facilitated their return to the government. The transition plan needs to encourage the retention of

those managers who can play key roles in creating the new corporate culture—and encourage the departure of those who cannot. There may well not be sufficient openings elsewhere in the federal government for employees unsuited to the commercialized ATC corporation. Hence, it would be wise to institute a system of bonuses under which such people can be compensated for taking early retirement. Nav Canada offered both early departure and early retirement incentive packages, along with layoff procedures similar to those within government. The unions agreed to these provisions.

In addition, there is the question of union recognition. Clearly, the labor agreements in force at the time of the transition to the new corporation should be binding on that corporation. The enabling legislation should specify the continued right of the corporation's employees to collective bargaining, subject only to continuation of the existing legal prohibition on the right to strike—due to the essential public-interest nature of air traffic services. It should be noted that in Canada, the Nav Canada unions do have the legal right to strike. However, at the one time in recent years when it appeared that strike action was imminent, the Canadian Parliament was poised to enact new legislation forbidding such a strike. (In the event, a new contract agreement was reached without resort to a strike, and the legislation was not enacted.) Thus, it is not clear that the unions' legal right to strike is very meaningful in Canada.

EMPLOYEE BENEFITS FROM COMMERCIALIZATION

Major organizational change is always perceived as risky. What's in it for current air traffic control employees to make the transition to a commercialized ATC Corporation?

The prospect of turning air traffic control into a high-tech service business, managed like the best private-sector businesses, ought to be appealing to those who chafe at the rigidities of a rigid, top-down bureaucracy. A second factor is that commercialization would bring the organization fully into the information age, with state-of-the-art technology. This would give controllers the hardware and software tools to do their jobs with less stress and greater safety. For the airway facilities staff who maintain ATC equipment, the opportunity to work with the latest computer and electronics equipment will give them experience that is more transferable to other private-sector jobs, should their career plans change. What is needed is a corporate culture dedicated to making optimal use of the latest and most cost-effective technology as a routine, ongoing way of life. A customer-driven ATC corporation is far more likely to develop and sustain that kind of corporate culture than a micromanaged government agency.

Market-based compensation is a third feature of a commercialized ATC provider. Freed from the remaining constraints of civil service, the corporation will be able to create the pay and benefit packages needed to attract and keep the best people for each type of job function and geographical location. In particular, this would mean the ability to attract and retain top management from the commercial world, experienced in running customer-focused high-tech service businesses.

A fourth factor is that under the nonprofit, stakeholder-controlled corporation model, ATC employees would have a seat on the corporate board. While employee board representation is common in Germany, it is virtually unknown in North America. The corporate board would set overall policy, including such issues as major technology upgrades, facilities locations and consolidation, pricing policies, etc. Being represented on that board would give the employees far more influence over corporate policy than they would have under any other form of organization (including a government corporation).

In addition to these large-scale benefits, there is also the long-standing issue of morale. There is considerable literature and much folklore about, in particular, poor controller morale. Among the factors cited are outdated and illogical staffing policies, resentment of supervisors who never work traffic, resentment of controllers who fail to maintain (or never achieve) proficiency but continue in place, and resentment of highly paid “special project managers” whose job functions are obscure. Another important change would be to “decriminalize”—i.e., adopt a nonpunitive approach to—operational errors, as Nav Canada has done, in the interest of improving air safety.

Another possible benefit to ATC employees is gain-sharing. For example, suppose that employees agree to facility consolidation that leads to major cost savings and thus to dramatic increases in productivity (ATC operations per employee). Under the nonprofit model, these cost savings would normally make possible reductions in future-year fees and charges to customers. But it is quite possible for these savings to be shared in some fashion, with a portion of the savings made available to employees and managers, rewarding them for changing the way they do business to make possible the gains in productivity. Having a seat on the corporation’s board would give employee groups greater standing to advance such gain-sharing proposals as matters of corporate policy.

Gain-sharing is considered an important tool for reinventing government. David Osborne and Peter Plastrik define it as “giv[ing] employees a

guaranteed portion of financial savings their organization achieves while continuing to meet specified service levels and quality. It gives workers a clear economic stake in increasing productivity." They provide a number of examples drawn from local government where gain-sharing has helped to produce significant cost saving. In the ATC field, Nav Canada is in the process of developing a gain-sharing program that will reward employees for bringing greater efficiency to users.

Yet another possible benefit for employees is the prospect of consulting work overseas, assisting other countries to modernize and corporatize their ATC systems.