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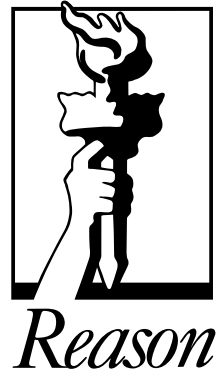
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# WHY AN AIR TRAFFIC CONTROL CORPORATION MAKES SENSE: A RESPONSE TO THE NATCA WHITE PAPER

By Robert W. Poole, Jr.



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307



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# Why an Air Traffic Control Corporation Makes Sense: A Response to the NATCA White Paper

BY ROBERT W. POOLE, JR.

## Executive Summary

The National Air Traffic Controllers Association (NATCA) recently issued a White Paper arguing against the “privatization” of air traffic control (ATC) services. This policy study responds to NATCA’s paper.

Overall, the White Paper is off-target, in that much of its argument is directed against a form of privatization—outsourcing—which no one has seriously proposed for the national ATC system. The White Paper does acknowledge several examples of ATC reform overseas that do follow the models proposed for this nation: conversion of the FAA’s existing ATC organization into a user-fee-supported business entity. But instead of dealing seriously with this model, the White Paper simply takes potshots at three of the overseas ATC corporations. In doing so, the paper provides no quantitative data or analysis. Its case is presented only in the form of anecdotes and assertions.

The White Paper also misleads by omission. It fails to explain the global trend toward converting ATC departments of government into user-fee-supported ATC corporations. That trend now extends to 29 nations (including much of Europe, Canada, and both Australia and New Zealand). Corporatized ATC providers now control over 40 percent of the world’s air traffic.

When it comes to specifics, the White Paper is factually incorrect on a host of major issues in which it uses selective or incorrect information about the corporatized ATC providers of Australia, Canada, and the United Kingdom. For example:

**Safety**—Contrary to the White Paper’s claims, air safety has improved in Canada and the United Kingdom since corporatization. Moreover, safety is greater at the U.S. control towers run by private contractors than at comparable towers run by the FAA.

**Security**—Converting to a corporate form of organization would not compromise national security, or 29 nations would not have done so. Nav Canada cooperated smoothly with NORAD and the FAA in bringing down all planes on Sept. 11, 2001.

**Cost Savings**—Contrary to the White Paper’s assertions, significant cost savings have been achieved by ATC corporations overseas, which have led to reductions in user fees.

**Staffing**—The White Paper distorts actual staffing changes in Canada, where Nav Canada is increasing the size of the controller workforce to adequate levels. But it also discounts the possibility of future cost savings thanks to facility consolidation and advanced technology, savings that have been achieved since Australia’s corporatization in 1995.

**Cross-subsidy**—Contrary to NATCA’s statements, the globally accepted method of charging aircraft for ATC services includes significant cross-subsidies (which NATCA claims would be a casualty of “privatization”). And special protections have been legislated for remote areas in Canada, a provision that could be adapted for rural areas in this nation.

**Modernization and Funding**—The White Paper dismisses the argument that a shift to user-fee funding will facilitate modernization. But the overseas experience demonstrates not only that this does occur, but illuminates how and why it does.

**Contract Towers**—Long the target of NATCA litigation, the more than 200 small-airport U.S. control towers are subjected to much innuendo in the White Paper, ignoring their superior safety record in addition to major cost savings.

In short, the NATCA White Paper is the furthest thing from an objective analysis of the issues involved in reforming air traffic control. Rather, it is best understood as a plea to maintain the status quo: a highly labor-intensive system run for the benefit of its employees rather than its users (the customers). The global track record of ATC corporatization is powerful and positive, and offers valuable guidance for reforming the U.S. ATC system.

# Table of Contents

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Overview: The White Paper is Off-target and its Case is Poorly Made .....	1
A. Outsourcing is Not the Issue .....	1
B. The Case for an ATC Corporation is Never Addressed.....	2
C. The White Paper Seriously Distorts the Overseas ATC Corporation Experience .....	3
D. The White Paper is Devoid of Analysis .....	3
Responding to Individual Points in the White Paper .....	4
A. Safety.....	4
B. Security.....	7
C. Costs and User Fees .....	8
D. Labor/Staffing Issues.....	11
E. Cross-subsidy.....	12
F. Technology/Modernization and Funding Issues .....	12
G. Contract Towers .....	13
Summary and Conclusion .....	15
Appendix A: Reports Advocating Structural and Financial Reform of the U.S. ATC System .....	17
Appendix B: Statement by Former FAA Officials Feb 22, 2001, Revised May 1, 2001 .....	18
Endnotes .....	19

## Part I

# Overview: The White Paper is Off-target and its Case is Poorly Made

The White Paper commissioned by the National Air Traffic Controllers Association (NATCA)<sup>1</sup> is fundamentally flawed in at least four major ways:

- Much of it critiques outsourcing of ATC services, which no one has proposed for the ATC system as a whole.
- It never really comes to grips with the kind of corporation models actually proposed for reform in this nation and implemented overseas.
- To the extent that it discusses the overseas ATC corporations, it seriously distorts their track records.
- It contains no real analysis and is virtually devoid of real numbers, being composed largely of anecdotes and assertions.

These points will be amplified in this section. Point by point discussion of a host of other issues will be provided in Part 2.

## A. Outsourcing is Not the Issue

The White Paper sets up and then knocks down a strawman, by pretending that there is a move afoot to contract out the operation of the ATC system to a for-profit company. This form of privatization, commonly called “outsourcing,” is indeed one of the Bush administration’s government-wide priorities, as part of the President’s Management Agenda. And there are certainly non-core FAA functions that have been correctly judged to be commercial in nature, as witnessed by the availability of private firms in the market providing such services—the so-called “yellow pages test.” The FAA and the military have many years of successful experience in outsourcing the operation of certain control towers (discussed in Part 2). And more recently the FAA has identified the services provided by Flight Service Stations as suitable for outsourcing, a decision welcomed by the private-pilot community that uses those services.<sup>2</sup>

But when it comes to the nationwide ATC system, the White Paper correctly notes that efficiency gains from having competing bidders would not be possible, because the system is and should remain a monopoly. Moreover, there are no available private firms with experience operating large national ATC systems under contract. And even if there were such a firm, it would have no suitable labor pool from which to hire experienced controllers except the FAA.

These points are all true and they are *completely irrelevant* to the actual proposals that have been made over the past decade for reform of the U.S. ATC system. As detailed in Appendix A, these proposals all involve structural and financial reform of the existing ATC system, converting it into a businesslike operation either within the FAA (the Mineta Commission proposal), as a separate government corporation (the Clinton administration's USATS proposal), or as a separate nonprofit corporation similar to Nav Canada (Reason Foundation's 2001 corporation proposal).

Critiques of outsourcing appear throughout the White Paper, perhaps reflecting NATCA's ongoing legal challenge to the FAA's Contract Tower Program. But elsewhere NATCA has conceded that this is a separate (and separable) issue. In the bill it has drafted for Sen. Frank Lautenberg (D, NJ), which would reverse President Bush's June 2001 Executive Order declaring ATC to be not "inherently governmental," NATCA agreed to exempt the existing Contract Tower Program. Except for correcting the White Paper's distortions of the facts about contact towers (in Part 2), we can therefore ignore the White Paper's arguments against ATC outsourcing. They are simply irrelevant.

## **B. The Case for an ATC Corporation is Never Addressed**

Although the White Paper takes potshots at both the National Civil Aviation Review Commission (NCARC, also referred to as the Mineta Commission) proposal and the Reason Foundation proposal, it ignores the extensive case made by a wide range of knowledgeable bodies that the ATC system is broken and in need of major structural and financial reform. These bodies include all those listed in Appendix A as well as the General Accounting Office and the DOT Inspector General's Office. While the latter two are not tasked with proposing overall reforms, their extensive critiques of the FAA's management of both personnel and modernization/procurement are fully consistent with the thesis that the system needs fundamental reform.

Completely ignored in the White Paper is a 2001 statement signed by a dozen retired senior officials of the FAA (including four Administrators) concluding that "Air traffic control is a 24 hour-a-day, 7 day-a-week high-tech service business. It can and should be operated by a separate corporate entity, paid directly by its customers, and directly accountable to its customers for its performance." The complete statement is provided in Appendix B. The statement expresses the judgment of seasoned aviation professionals who have had direct responsibility for managing the ATC system within the FAA. Their conclusion that this function should be separated from the FAA and run as a user-funded corporate entity should be taken very seriously, especially since it is broadly consistent with over a decade of studies by advisory bodies and White House/DOT task forces. Indeed, during the Clinton administration's first term, its USATS corporation proposal was supported by NATCA, which was under different leadership in those days.

Today, by contrast, NATCA opposes even the mildest of the reform proposals, the NCARC recommendation to convert ATC into a performance-based organization within the FAA, directly funded by a bondable revenue stream. Its only proposed solution to the system's well-documented failings is to propose better labor/-management cooperation. This is hardly a serious attempt to come to grips with a system that cries out for fundamental reform.

### C. The White Paper Seriously Distorts the Overseas ATC Corporation Experience

Because it could not completely avoid mentioning non-outsourced ATC reform overseas, the White Paper does take potshots at three of the many corporatized ATC systems that have come about within the past decade: Airservices Australia, NATS (United Kingdom), and Nav Canada. In a great many cases, as will be documented in Part 2, the report provides misleading or outright false information about these three ATC corporations.

But on a larger scale, the report misleads by omission. It completely fails to inform readers that ATC corporatization—i.e., the shift of air traffic control staff and facilities from government departments to user-funded corporate entities—is a major global trend. According to a recent news article, the 29 nations that have restructured ATC into some form of corporate entity now control over 40 percent of the world’s air traffic.<sup>3</sup> These 29 companies have qualified for full membership in a global organization called CANSO—Civil Air Navigation Services Organization ([www.canso.org](http://www.canso.org)). The global move toward corporatization has been endorsed by both the International Civil Aviation Organization (ICAO) and the International Air Transport Association (IATA), two of aviation’s most important bodies.

But this relevant context is not provided to readers of the NATCA White Paper, which presents ATC “privatization” as an issue of ideology, pushed by a conservative White House. If that were all there were to it, why have such governments as Austria, Belgium, Denmark, Germany, Italy, Netherlands, Norway, Spain, and Switzerland all taken this step over the past 10 years? Why would the newly emerging democracies of the former Soviet bloc also be taking this step (such as the Czech Republic, Estonia, Latvia, Lithuania, Moldova, Slovakia, and Ukraine)?

### D. The White Paper is Devoid of Analysis

For a report seeking to make the definitive case against ATC “privatization,” the White Paper is curiously devoid of data, numbers, and analysis. There are no tables to back up its many assertions with data, and the only figures are a theoretical marginal cost curve plus two graphs showing FAA ATC employment data. Numerous assertions are made, about the Contract Tower program and about the three overseas corporations that it acknowledges exist. But no serious, quantitative data are provided to support these assertions. And the footnotes cited as sources for some of these allegations turn out to be either newspaper articles without titles or authors, or non-public sources such as “internal NATCA memo” or “see FCT Newsletter.” Despite Professor Sclar’s affiliation with a major university, this is not academic-quality work. It is better described as a “hit piece,” in which anecdote and assertion substitute for analysis.



## Part 2

# Responding to Individual Points in the White Paper

In this section we will address the major points made in the NATCA White Paper. Since we have already explained why (except with respect to the Contract Tower program) the arguments based on outsourcing are irrelevant, the following discussion is based largely on addressing the claims made about Airservices Australia, NATS, and Nav Canada. In preparing this section, the author has relied on both published sources and responses to specific White Paper allegations furnished by the three ATC corporations.

## A. Safety

There are at least three reasons, in principle, why corporatizing ATC should lead to increased air safety. The first of these is putting ATC operations at arms length from safety regulation. This has been one of the explicit aims of most of the 29 nations that have reformed ATC in this manner over the past decade. It is also a principle embraced by the European Union in devising its “Single Sky” reform of ATC. A growing consensus of aviation professionals agrees that for the same organization “to both provide air traffic control services and regulate the safety of ATC operations is a conflict of interest.”<sup>4</sup> Within the U.S. DOT today, all safety regulatory bodies are separate from provider/funder agencies except in the case of the FAA. Both FMCSA and NHTSA were separated from the Federal Highway Administration for this reason. And the FAA is at arms length from all other operational components of the civil aviation system: airlines, aircraft and engine producers, pilots, and mechanics. Only in the case of ATC does it, in effect, regulate itself.

The second reason is that safety will be enhanced by substituting state-of-the-art technology for the obsolescent equipment on which the FAA still relies for much of air traffic control. The FAA’s ATC modernization has established a long track record for bringing in projects many years late and way over budget, as documented repeatedly by GAO and OIG reports. As discussed further on in this section, the corporatized providers overseas have a better record on modernization than the FAA. As the NCARC and USATS studies pointed out, modernization would be facilitated by the ability to make long-term capital spending commitments thanks to revenue bond financing.

Third, if ATC restructuring takes the form of a government or nonprofit corporation, that entity can and should obtain liability insurance, as many of the overseas corporations have done. That would create an additional layer of safety oversight, in addition to what the FAA (as arms-length safety regulator) would provide. This can only be positive for air safety.

The NATCA White Paper ignores all three arguments. Instead, it presents several anecdotes or assertions about the safety of “privatized” ATC, which will be dealt with here.

### ***1. Nav Canada Operating Irregularities***

On p. 10, the White Paper asserts the following:

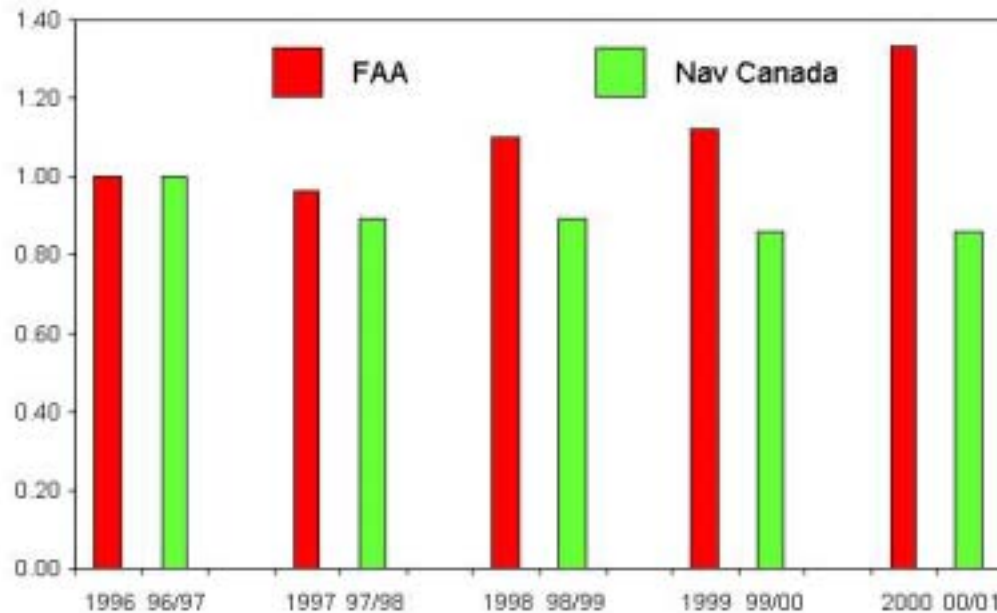
*Evidence from Canada . . . suggests that the price [of privatization] is safety and employee satisfaction. . . . The second result of this cost containment strategy has been an operational irregularity rate of two per 100,000 aircraft movements—over twice that of the American rate for a system 7 percent of our size.*

This claim is highly misleading, on two grounds. First, it compares apples and oranges, since the definition of “operating irregularities” in Canada is far more inclusive than the term “operational errors” used in the United States. Second, the claim ignores the trend in each nation—which is downward in Canada and upward in the United States.

Nav Canada’s definition includes incidents involving Flight Service Stations, Remote Aerodrome Advisory Service, VFR Tower Operations, plus all VFR/IFR and VFR/VFR losses of separation, including any event where planning or monitoring failed but no loss of separation occurred. Canada’s system also does not use the FAA’s recent “80 percent rule” in which a violation of separation standards is not counted if the separation is within 80 percent of the requirement. Canada also uses a more stringent definition of runway incursions.

However defined, the trend in Canada since Nav Canada took over in 1996 has been downward, toward fewer operating irregularities. By contrast, the trend of operational errors in the United States has been sharply upward over the same period of time. The DOT Office of Inspector General noted, in late 2000, that the number of operational errors had increased by 51 percent over five years and complained that the FAA’s efforts to reduce the rate were “ineffective” and lacked “a sense of urgency.”<sup>5</sup> Figure 1 graphically illustrates the changes that took place in both nations over the five-year period, with the rates normalized to a common 1.0 baseline for 1996.

**Figure 1: Comparison of Operational Error-rate Trends  
FAA vs Nav Canada**



Note: data for Nav Canada are "operating irregularities" while data for FAA are "operational errors," as defined in each nation. Source: Reason Foundation, based on data provided by Nav Canada and the U.S. DOT Office of Inspector General

## 2. NATS Air Proximity Incidence

NATCA has made similar misleading claims about near-mid-air collisions in the United Kingdom, though these claims are not included in the White Paper. In his statement in support of his bill to overturn President Bush's executive order, Sen. Frank Lautenberg made the following claim on behalf of NATCA: "Since Great Britain adopted privatization, near misses have increased by 50 percent."<sup>6</sup>

In fact, the United Kingdom has an official government body charged with classification and investigation of what they call "airprox" incidents, meaning a loss of separation between aircraft. The Airprox Board is made up of pilots, controllers, and military personnel. Airproxes are classified into three categories:

- Class A—a loss of separation where there was a risk of a collision;
- Class B—a situation in which safety was not assured; and
- Class C—no risk of collision existed.

The NATS public-private partnership came into being in July 2001. There have been no Class A airproxes since that date. For calendar year 2001, the board judged that there were nine Class B airproxes, and it appears likely that the final number for 2002 will be four (the final number for 2002 will not be announced until mid-2003). Class C airproxes did increase, from 29 to 41. Clearly, what most people would define as a

“near-miss” is Class A or Class B airproxes, not Class C. There has been a decrease, not an increase, in such incidents since the NATS public-private partnership.

**3. A Swiss-German Mid-air Collision**

A tragic mid-air collision near the Swiss-German border in July 2002 killed 71 people. While the investigation has not yet been completed, problems at Skyguide, the corporatized Swiss ATC provider, appear to have been a significant factor. The White Paper cites this one incident as if it proved something bad about corporatized ATC. This malicious exploitation of a tragedy ignores two relevant points. First, no other such incidents have occurred with the other 28 corporate entities now controlling 80 percent of the world’s air traffic. More important, it ignores a number of mid-air collisions in the United States in which one of the underlying causes was failure of the FAA’s ATC system to maintain separation. Three such mid-air collisions have occurred in recent years in Southern California alone:

- The 1978 collision of a PSA 727 and a Cessna 172 near San Diego;
- The 1986 collision of an Aeromexico DC-9 and a Piper Cherokee over Cerritos; and,
- The 1991 collision of a USAir 737 and a commuter plane at LAX.

One anecdote does not prove anything, and the Swiss-German tragedy tells us nothing about the safety level of ATC corporations in general.

**4. U.S. Contract Towers**

Although the White Paper never actually claims that the FAA’s privately operated contract towers are less safe than their FAA-run counterparts, it tries to imply this by noting that “The current savings per contract result from the fact that the contractors use drastically fewer controllers per tower.”<sup>7</sup> But the ultimate test is whether or not leaner staffing actually makes any measurable difference in safety. This question can easily be answered by looking at real data. Table 1 compares operational errors/deviations at comparable VFR towers operated either by contractors or the FAA during the years 2001 and 2002. As can be seen, the average error rate is more than twice as high at the generously staffed FAA towers.

<b>Table 1: Operational Errors/Deviations (OEDs) at VFR Towers</b>			
	2001	2002	Total
Contract tower ops	15,767,514	16,074,442	31,841,956
FAA tower ops	13,559,790	13,368,369	26,928,159
OEDs at contract towers	15	12	27
OEDs at FAA towers	29	30	59
Contract tower OED rate/million ops	0.95	0.75	0.85
FAA tower OED rate/million ops	2.14	2.24	2.19

Source: National Airspace Information Monitoring System (NAIMS) ATX-400, Feb. 3, 2003.

**B. Security**

Much NATCA rhetoric has cited national security as a reason for retaining the status quo. The White Paper and accompanying news release make two such security points. First, they cite “the security risk associated

with private operators and their employees having unabridged access to the nation’s air traffic control systems.”<sup>8</sup> This argument would apply equally well to aerospace and defense firms, calling for them all to be nationalized in order to protect access to sensitive information. But in fact it is irrelevant, because nobody is proposing that the ATC system be outsourced to a private contractor. Under all serious reform proposals, the same people and facilities now providing ATC services would continue to do so, under new management and funding arrangements.

Second, the news release argues that “ATC must work closely with military traffic controllers and be able to respond to emergencies as a unified system—as it did on Sept. 11, 2001, when controllers grounded all U.S. airliners in a matter of hours.”<sup>9</sup> But this is a requirement that all corporatized ATC systems must meet, and are meeting. It was put to the test in Canada on 9/11, when Nav Canada worked closely with NORAD and the FAA to coordinate the landing of all airliners in both nations. White House Chief of Staff Andy Card was asked about this on ABC News in June 2002. Card noted: “Canada has a privatized air traffic control system. They worked very effectively with the United States when we said, ‘We’ve got planes in the sky that might be dangerous; put them on the ground,’ and it worked very, very well.”

### C. Costs and User Fees

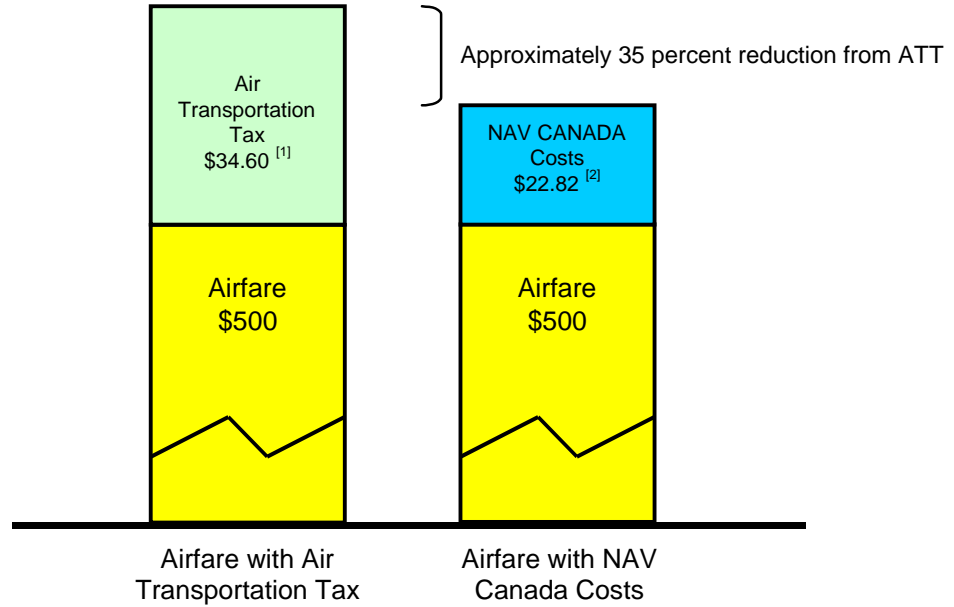
In its executive summary, the White Paper asserts that “privatized air traffic control systems tend to impose greater costs on users,” and goes on to claim that “In Canada, the privatized system has led to massive increases in user fees for passengers.”<sup>10</sup> Later in the report, it goes on to say that “Even when the control fee charged to airline passengers decreases, passengers end up paying more. By 2002, the average fee per-traveler increased from \$12 to \$22.”<sup>11</sup>

What do we actually know about cost reduction and user fee levels in corporatized ATC systems? Although the White Paper only makes specific allegations about Nav Canada, we will summarize the situation for Airservices Australia and NATS, as well.

#### *1. Nav Canada Costs and Fees*

The legislation creating Nav Canada requires that its fees and charges not exceed the company’s current and future financial requirements—which do not include a profit, since it has been set up as a not-for-profit corporation. When the transition to Nav Canada was complete, the government repealed the Air Transportation Tax, in accordance with the corporatization principle of shifting from taxation to user fees. Fees to airlines are based on weight and distance flown. They are not charged per passenger, but it is possible to divide the ATC charge for a flight by the number of passengers to see how these fees compare to the per-passenger burden of the now-repealed tax. This has been done in Figure 2, for a typical \$500 round-trip ticket within Canada. Figure 3 shows the changes in ATC user fees in Canada since they first began to be charged, through January 2003, and compares them with changes in the consumer price index for Canada. As can be seen, even with the January 2003 rate increase, user fees are not only less than the tax that they replaced but are lower in real terms than when they began to be charged.

**Figure 2: NAV Canada Charges Versus The Air Transportation Tax (ATT)  
Typical \$500.00 Round-trip Airfare within Canada**

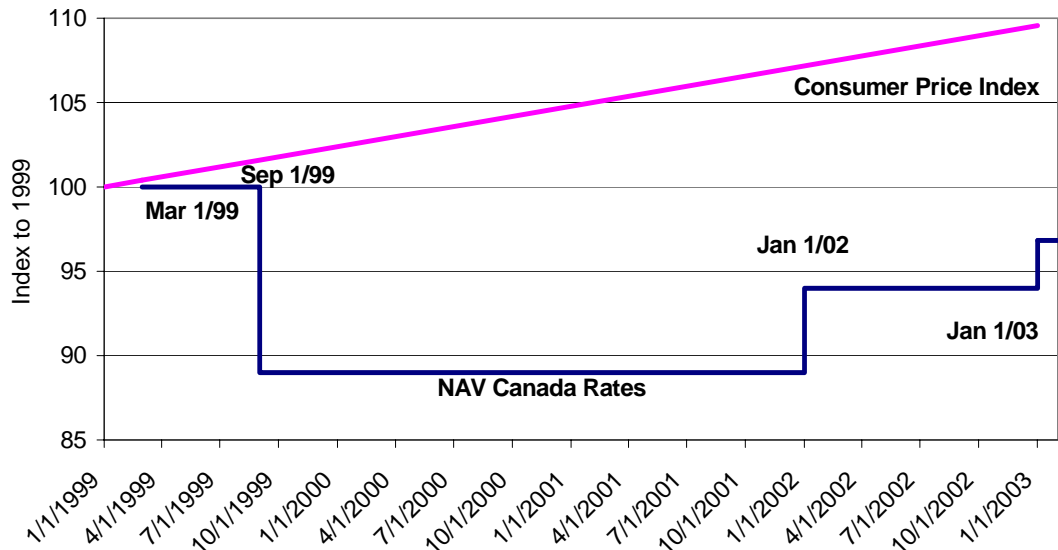


[1] Adjusted to reflect connecting passengers

[2] Nav Canada cost expressed on a per passenger basis, assuming a load factor of 75 percent

Source: Nav Canada

**Figure 3: History of NAV CANADA Rate Changes Versus Consumer Price Index (CPI)**

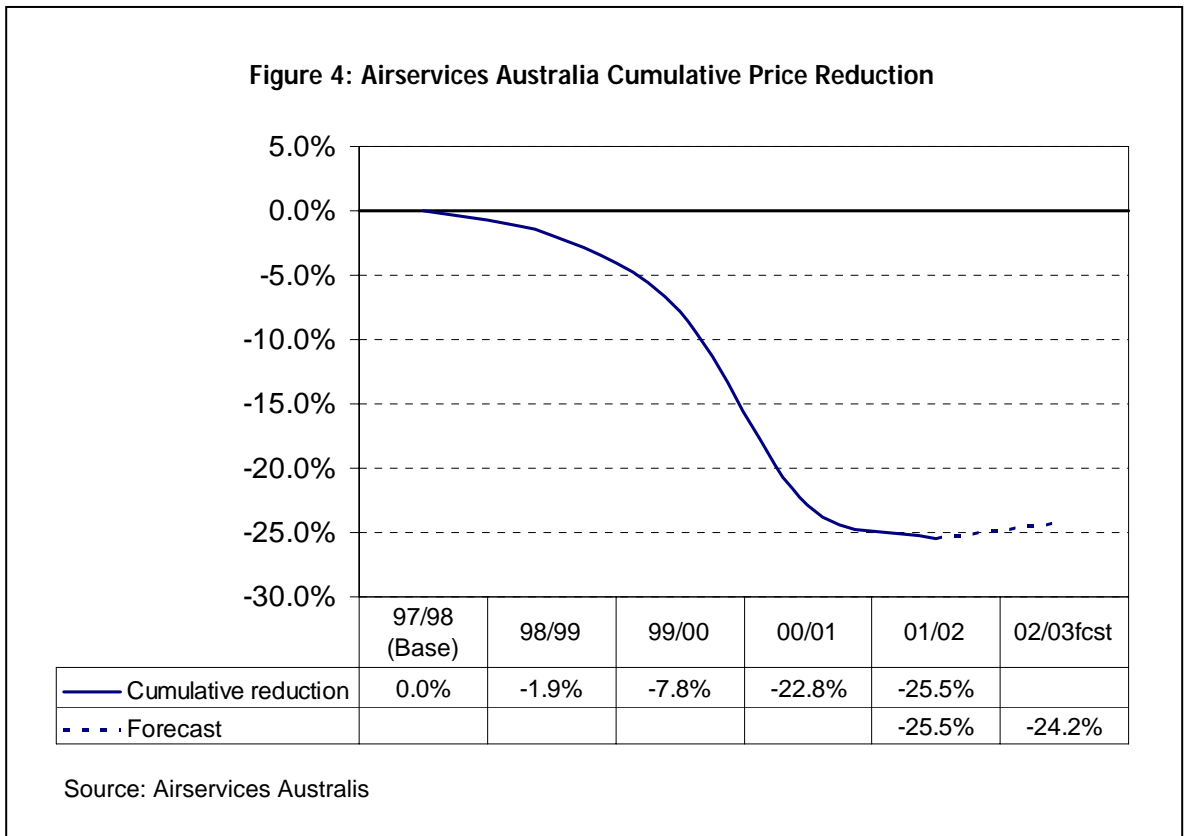


\* Average changes since charges were fully implemented on March 1, 1999.

Source: Nav Canada

### 2. Airservices Australia Costs and Fees

Airservices’ existence as a user-fee-supported corporate entity dates from mid-1995. Over the 10-year period from 1991 to 2001, the air-traffic services arm of the company has reduced its annual operating costs by 26 percent—while handling 157 percent more air traffic movements per operational member. These cost savings have been reflected in decreases in ATC user fees over the years, as shown in Figure 4.



### 3. NATS Costs and Fees

The NATS public-private partnership had only been in operation for a few months when 9/11 occurred, causing a sharp decrease in commercial air travel across the North Atlantic (its largest source of business)—a decline from which air travel has still not recovered. As a result, the original NATS business plan, which had been based on steady traffic growth leading to annual reductions in user fees (in real terms) became unviable. Negotiation with NATS’s economic regulator, the Civil Aeronautics Authority, over a new set of fee levels and a financial restructuring, took place throughout 2002. The resolution reached by year-end calls for both principal owners—a private sector aviation group (46 percent) and the U.K. government (49 percent)—to each invest an additional \$100 million in equity, which will permit further access to bank loans and bonds. The CAA reached agreement with NATS on a new user-fee schedule, under which the fee change would be the retail price index minus 2 percent for each year, from 2003 through 2005. Thus, if inflation averages 2 percent, user fees would be unchanged for three years; if inflation is higher than that, user fees would increase slightly.

In short, contrary to the news release's assertion that a privatized ATC system would cost more, the evidence from the three ATC corporations selected by NATCA shows a record of successful cost reductions, with concomitant reductions in ATC fees charged to users.

## D. Labor/Staffing Issues

The White Paper focuses considerable attention on staffing issues, with the principal message being that ATC corporatization has been achieved at the expense of employees, especially controllers. Here again, the specific claims made about overseas ATC firms are highly misleading.

For example, on p. 4, the report alleges that "In Canada, the privatized system has led to . . . dangerous understaffing in towers." And on p. 10 it says that due to the introduction of more flexible schedules, "Controllers in Canada are stretched to the point of being unable to perform their jobs." These claims are ludicrous.

To begin with, when the system transitioned from Transport Canada to Nav Canada, it was seriously understaffed, with available controller staffing levels being at only 90 percent of requirements. Fixing this has been a priority for Nav Canada. In its first bargaining round, the company increased controller salaries by about one-third. It has actively recruited and trained more controllers, increasing the available controller workforce by 169 from June 1999 to January 2003. The company continues to spend \$50 million per year on training, with nearly 400 trainees currently in the training system. As of early 2003, available controller staffing was at 100 percent overall, based on the 1996 requirement. Its goal is to achieve 105 percent of staffing requirements. As a result of these efforts, the amount of controller overtime has been reduced about 20 percent. The NATCA claim of "dangerous understaffing in towers" is inexcusable. Nav Canada's available tower staffing is at 99 percent of today's requirement.

To put the claims of controller overwork in perspective, it helps to know that Nav Canada controllers work fewer hours per week and days per year than FAA controllers. The former work a 36-hour week compared with 40 hours at the FAA; and Nav Canada controllers work 222 days per year, compared to 260 for U.S. controllers.

All three companies have reduced the size of their total workforce, primarily by reducing administrative overhead. Thus, Nav Canada's total headcount has dropped from 6,300 to 5,460 at the end of 2002, despite the increase in controller numbers. In its first 18 months, NATS did likewise, decreasing the total from 5,643 to 5,100 (without layoffs), while increasing controller numbers slightly from 1,944 to 1,973. In its nearly eight years as a corporation, Airservices Australia has brought about the largest reduction in staffing—a fact not mentioned in the White Paper. Total headcount was 4,394 in July 1995 but had declined to 2,920 by the start of 2003. Controller numbers declined by 13 percent over this time period. A key factor was facility consolidation, under which six state-based Flight Information Regions were consolidated into two state-of-the-art en-route centers, one in Brisbane and the other in Melbourne.<sup>12</sup> The other factor was the introduction of advanced technology (such as controller-to-pilot data link or CPDL), which permits controllers to be more productive—i.e., fewer controllers can handle the same amount of traffic.



## E. Cross-subsidy

The news release makes a big deal out of the alleged loss of cross-subsidies built into a tax-funded ATC system. “Without a cross-subsidy for traffic control, fares on high-cost/low-usage routes would be higher.”<sup>13</sup> Further, the news release claims that this would lead to higher user fees at small airports.

The fact is that considerable cross-subsidy is built into the user fee structure of corporatized ATC providers. All of them follow the ICAO charging principles, which call for airliner fees to be based on gross weight and distance flown in the system.<sup>14</sup> Inclusion of gross weight reduces the level of fees charged to smaller planes, which is generally justified on ability-to-pay grounds. Special exceptions are built into the user fee system for small general aviation planes, which in Canada pay a small annual fee—again, justified on ability-to-pay grounds. Thus, airlines generate 98 percent of Nav Canada’s revenue, even though general aviation accounts for much more than 2 percent of the company’s costs.

In addition, the charging principles included in the statute creating Nav Canada offer special protection for remote areas. Section 35(1)(g) provides that “charges for designated northern or remote services . . . must not be higher than charges for similar services utilized to a similar extent elsewhere in Canada.” In other words, various levels of cross-subsidy can be built into a corporatized system by law, should policymakers deem this advisable.

## F. Technology/Modernization and Funding Issues

One of the most important reasons that 29 nations have shifted ATC from a government department to a fee-supported corporation is to facilitate modernization. Corporatization does this in two ways. The user fees paid directly to the company provide a bondable revenue stream. That means the funding for a major modernization program can be assembled up front, instead of the ATC provider having to go year after year to the legislative body for an annual appropriation. Second, the shift to a business management model means that government procurement regulations can be dispensed with, providing much greater flexibility, all the way from buying off-the-shelf systems to designing things completely in-house.

The White Paper makes a few assertions and provides a couple of anecdotes, attempting to make the case that these hoped-for benefits are not being achieved. But the record says just the opposite. Both Australia and Canada’s systems have made major technological advances, often ahead of the FAA, while the NATS public-private partnership has only been in existence for a year and a half, during which it has had to cope with a major, unexpected downturn in traffic and revenue. It is premature to draw any conclusions about modernization from such a short period.

The White Paper’s critique of Nav Canada is brief: “Technological ‘innovation’ in Canada has consisted of waiting for the U.S. to develop new technology and then importing it.” While in some cases this might be a cost-effective approach, it’s a gross distortion of what Nav Canada has actually done. Its new Gander Automated Air Traffic System (GAATS) is the most advanced oceanic ATC system in the world, surpassing anything the FAA has in use. GAATS was recently licensed to NATS to modernize its oceanic system. The new domestic Canadian Automated Air Traffic System (CAATS) was designed and developed in Canada and is now being installed. No U.S. equivalent exists, despite tens of billions having been spent on modernization by the FAA since the early 1980s. Other Nav Canada-developed systems include the Radar

Data Processing Situation Display (RSiT)—developed in-house in less than 18 months—and the Extended Computer Display System (EXCDS), also developed in-house. EXCDS has also been purchased by NATS for use in U.K. towers. Nav Canada has purchased off-the-shelf systems from other nations to avoid duplicating their design and development costs. In some cases (e.g., the Converging Runway Display Aid purchased from Mitre Corp.), Nav Canada made extensive software design changes before introducing it in Canada.

Airservices Australia has likewise introduced major technology upgrades, in particular The Australian Advanced Air Traffic System (TAAATS). In its 2001 report on Airservices, *Aviation Week* described the consolidated en-route centers in Brisbane and Melbourne, using TAAATS, as “probably the most modern in the world.”<sup>15</sup> To the maximum extent possible, TAAATS was designed to use existing technology. As *Aviation Week* notes, “Airservices managers decided to modify its legacy ATC procedures and practices to exploit off-the-shelf systems’ capabilities. *It made more sense to change controllers’ way of doing things than to spend millions of dollars on hardware and software changes to accommodate outmoded procedures.*” (emphasis added) The resulting system is designed to work with radar data processing, ADS-B and ADS-C, and flight data processing. It incorporates controller-to-pilot data link (CPDL) communications, just now being tested by the FAA. Like Nav Canada’s CAATS, it eliminates paper strips at its standardized controller workstations.

Another *Aviation Week* article makes the connection between Airservices’ expedited modernization and its direct user-fee funding:

*Before converting to the current corporate ATM arrangement, Australia’s air traffic control system suffered from the same government whipsawing that the U.S. FAA still endures. Annual budgets determined what upgrades could be made, and periodic program cuts were the norm. . . . This stop-start process precluded long-range planning and drove costs higher. Now, Airservices managers can develop a business case for investments in facilities and equipment, based on anticipated revenues over a period of years. . . . [for example] enabling the standardization of a single type of radar system. . . . The new commercial entity could also secure a better deal with equipment contractors, who were assured of a predictable flow of funds.*<sup>16</sup>

## G. Contract Towers

Thanks to NATCA’s endless litigation against the FAA Contract Tower Program, the White Paper is full of digs at that Program. For example, on p. 16 it makes the assertion that “Evidence from existing U.S. efforts to contract out tower operations demonstrates that [outsourced] ATC can be less expensive, but only at the cost of a reduced level of service.” No further information is provided in support of this assertion, most likely because what research findings do exist reach exactly the opposite conclusion. The Federal Contract Tower (FCT) Program has been studied by both the General Accounting Office and the DOT’s Office of Inspector General. They have consistently found that these towers provide service of comparable quality and safety as the FAA’s VFR towers, at less than 50 percent of the cost.<sup>17</sup>

On p. 12, the White Paper implies that cost is the only factor in selecting a firm under the FCT Program, once a firm has met basic qualifications. But the selection criteria include quality and experience, as well as price.

On p. 27, the White Paper claims that “the training costs and standards of these [FCT] employees are currently lower than FAA’s.” That is simply untrue; according to the Contract Tower Association, the standards are exactly the same. It is true that average training costs are lower for contract towers, because the companies are often able to hire former military controllers who do not need as much training as would raw recruits.

Finally, the paper makes a convoluted argument that the low costs of contract towers could not be generalized to the entire ATC system, because a mega-contractor for the whole system would quickly run out of retired military controllers who need little training. That argument is beside the point because, as we’ve noted several times, nobody is proposing to outsource the rest of the ATC system. The model advocated by all serious reformers is to transform the existing organization, including its people and facilities, into a user-fee-funded corporate entity, regulated at arms length by a revamped FAA safety regulator.

## Part 3

## Summary and Conclusion

The NATCA White Paper sets up a strawman—outsourcing of the entire ATC system to a private, for-profit contractor—and knocks it down. But that does nothing to answer the long-standing case for fundamental structural and financial reform of a system that is in need of major change (see Appendix A). In very selectively citing anecdotes from three overseas ATC corporations, the White Paper avoids a full and fair presentation of the actual accomplishments of the global move toward replacing government ATC departments with user-fee-supported ATC corporations. That track record includes:

- Smoother and more rapid introduction of advanced ATC technology, going well beyond the FAA’s troubled modernization efforts;
- Improved safety performance, well-documented by hard numbers;
- Meaningful cost reduction, on a sustainable basis; and
- Customer satisfaction.

This latter point has not been emphasized in the preceding sections of this report, but is worth noting here. In 2001, the International Air Transport Association presented its annual Eagle Award to Nav Canada. This award is given each year to airports and ATC providers that give “value for money” to the airlines and that are “diligent in improving productivity and efficiency.” The IATA news release announcing this award said the following about the company:

*Nav Canada, a non-share-capital, not-for-profit corporation, providing air navigation services in Canada, was cited as a unique example of a successful conversion of a government bureaucracy into an efficient corporate operation. Reductions in rates and charges reflected their productivity improvements. They were also honored for their use of technology and innovative procedures to help airlines save fuel and emissions at major airports across Canada.<sup>18</sup>*

In 2002, the first post-9/11 year with its global air travel recession, IATA “decided to recognize 10 other organizations that have responded in a significant manner to IATA’s calls for support in terms of reductions in costs and charges to airlines.”<sup>19</sup> Six of the 10 were airports, but the other four were ATC providers: ANS Czech Republic, Airservices Australia, Irish Aviation Authority, and Nav Canada. All four are ATC corporations.

With the world’s ATC corporations establishing such a strong track record, it is hardly surprising that the NATCA White Paper avoided a full and complete presentation of their performance, relying instead on anecdotes and assertions. All of which raises the question: What is NATCA’s real agenda? Some clues are provided in the White Paper’s sections 4, 5, and 6. Here are some revealing statements from that portion of the report.

- “The production of ATC is labor-intensive work.” (p. 20)
- “The bottom line risk in this dialogue [of ATC “privatization” or “corporatization”] is that it threatens the long-term stability and security of our national air space.”
- “. . . if [C]ongress agrees to stand behind the FAA’s existing minimum controller employment level negotiated with NATCA.” (p. 29)
- “. . . a wholly privatized ATC system could not benefit from lower labor costs than those faced by the current system.”

Now this is truly interesting. The message of section 6.0 of the White Paper (pp. 26-31) is that since ATC is labor-intensive and since an ATC corporation would be unlikely to be able to pay less than current salary levels, “It is doubtful that [privatization] can” achieve “real cost savings in system operation.” But by referring to the current contract provision forcing the FAA to employ at least 15,000 controllers regardless of need, the White Paper gives away the game.

The real cost savings in ATC corporatization come about not from reducing salaries but from increasing productivity. Yes, ATC as practiced today by the FAA is highly labor-intensive, but that is changing as we have seen in Australia and will be seeing elsewhere, as corporatized systems consolidate facilities and implement new technology, giving controllers the tools to handle more flights safely. Technologies such as CPDL (essentially, email replacing voice for many routine communications) are inherently productivity-increasing (i.e., labor-saving). The entire move toward Free Flight technologies will shift an increasing amount of information and control from ground-based ATC facilities to aircraft cockpits, thanks to improved computer and communications technologies that will simultaneously increase air safety.

It is this major change in the nature of the business—from air traffic control (ATC) to air traffic management (ATM)—that NATCA sees as a threat. Employee unions have fought automation—i.e., labor-saving or productivity-increasing technology—for more than a century. It is always a losing battle, in the medium to long term. But there are important short-term gains to be had for incumbent union leaders if they can hold off such technological change for another 5, 10, or 15 years. By keeping the system very labor-intensive, they can expand the size of their union and the power and perks of office.

But holding back major modernization poorly serves the interests of aviation users, who pay the costs of ATC via the current aviation excise taxes. The White Paper also gives away the game on this subject:

*Privatization at the bottom line is really nothing more than an attempt by elements in the industry to ensure that tax revenues generated by air transport are recycled to air transport in ways that they can control. (p. 23)*

Precisely. The underlying theme of ATC corporatization in Canada was “*User pay means user say.*” The creation of a user-fee-funded corporate entity, controlled by a stakeholder board, represented precisely such a shift. With Nav Canada, the customers end up calling the shots. It is telling in this regard that we are told that during the tenure of Administrator Jane Garvey, the employees were referred to as the FAA’s customers. But customers are those to whom an organization delivers its services, and who pay its bills.

This conflict is truly about who will ultimately control the U.S. ATC system. Will it continue to be the employee unions, as under the status quo? Or will it be the system’s users—its actual customers—via creation of an ATC corporation? That’s essentially what NATCA’s White Paper is telling us. We should pay attention.

## Appendix A

# Reports Advocating Structural and Financial Reform of the U.S. ATC System

Glen A. Gilbert, *The United States Air Traffic Services Corporation*, Washington, D.C.: Glen A. Gilbert & Associates, October 1, 1975.

*Federal Corporation Approach to the Management and Funding of the Air Traffic Control System*, Washington, D.C.: Air Transport Association, September 1985

Transportation Research Board, *Winds of Change: Domestic Air Transport Since Deregulation*, Special Report 230 (especially Chapter 7 and Appendix B), Washington, D.C.: National Research Council, 1991.

Darryl Jenkins and Douglas Frechtling, *Air Traffic Control: Death of an Industry?* Washington, D.C.: Aviation Consumer Action Project, 1992.

Gerald L. Baliles, *Investing in Our Future: Report of the Public Infrastructure Subcouncil to the Competitiveness Policy Council*, Washington, D.C.: Competitiveness Policy Council, March 1993.

Gerald L. Baliles, et al., *Final Report, National Commission to Ensure a Strong and Competitive Airline Industry*, Washington, D.C.: August 1993.

Frank E. Kruesi, et al., *Air Traffic Control Corporation Study*, Report of the Executive Oversight Committee to the Secretary of Transportation, Washington, D.C.: U.S. Department of Transportation, May 1994.

Ed Kelly, et al., *Air Traffic Control: Analysis of Illustrative Corporate Financial Scenarios*, Technical Report prepared by the Corporation Assessment Task Force for the Executive Oversight Committee, Washington, D.C.: U.S. Department of Transportation, May 3, 1994.

Norman Y. Mineta, et al., *Avoiding Gridlock & Reducing the Accident Rate: A Consensus for Change*, Washington, D.C.: National Civil Aviation Review Commission, December 11, 1997.

Robert W. Poole, Jr. and Viggo Butler, *How to Commercialize Air Traffic Control*, Policy Study 278, Los Angeles: Reason Public Policy Institute, February 2001.

## Appendix B

# Statement by Former FAA Officials Feb 22, 2001, Revised May 1, 2001

Each of us has held a senior position within the FAA, and each of us continues to consult on aviation issues. In reviewing the FAA's performance over the past decade—including recent years since enactment of various reforms by Congress—we have concluded the following:

1. Air traffic control is a 24 hour-a-day, 7 day-a-week high-tech service business. It can and should be operated by a separate corporate entity, paid directly by its customers, and directly accountable to its customers for its performance. This country can no longer afford to provide this 21<sup>st</sup>-century service using a 1950s-type organizational and funding approach.
2. Attempted reforms of FAA's personnel and procurement systems have failed to materially change the agency's organizational culture, which is necessarily bureaucratic, risk-averse, and not sufficiently customer-focused. Despite the increased funding promised by AIR-21, the FAA's revenue stream is still uncertain, dependent on the ups and downs of the federal budget process. And efforts to convert the FAA's Air Traffic Services into a "performance-based organization" within FAA will not convert it into a sufficiently customer-focused entity.
3. For the FAA to both provide air traffic control services and regulate the safety of ATC operations is a conflict of interest. The ATC service provider should be regulated at arms-length by the FAA, just as it regulates air carriers, aircraft and engine manufacturers, and all other components of the aviation system.

Therefore, we support the creation of a not-for-profit air traffic control corporation, along the lines proposed by the Reason Public Policy Institute in its policy study #278 dated February 2001.

Signed,

Langhorne Bond, Administrator, 1977-81

David Hinson, Administrator, 1993-97

Allan McArtor, Administrator, 1987-89

John McLucas, Administrator, 1973-77

Al Blackburn, Associate Administrator for Policy, 1986-88

Tony Broderick, Associate Administrator for Regulation & Certification, 1985-96

Joe delBalzo, Executive Director, Engineering and Development & Operations, 1989-92; Acting Administrator 1993

Robert Donahue, Associate Administrator for Airports, 1987-90

George Donohue, Associate Administrator for Research & Acquisitions, 1994-98

Michael Goldfarb, Chief of Staff, 1987-89

Larry Hecker, Deputy Administrator, 1987

Sandy Murdock, Chief Counsel, 1981-85, Acting Deputy Administrator, 1984

# Endnotes

- <sup>1</sup> Professor Elliott Sclar and the HDR Management Consulting Group, “Pitfalls of Air Traffic Control Privatization,” Washington, D.C.: National Air Traffic Controllers Association, February 2003.
- <sup>2</sup> [www.aopa.org/whatsnew/air\\_traffic/a76\\_process.html](http://www.aopa.org/whatsnew/air_traffic/a76_process.html).
- <sup>3</sup> “Norway and Azerbaijan Bring CANSO Total to 29,” *ATC Market Report*, January 24, 2003.
- <sup>4</sup> See Appendix B.
- <sup>5</sup> “FAA Is ‘Ineffective’ In Reducing Operational Errors, OIG Says,” *ATC Market Report*, Jan. 4, 2001.
- <sup>6</sup> Sen. Frank Lautenberg, *Congressional Record*, Feb. 10, 2003 (S2122-23).
- <sup>7</sup> Sclar and HDR, pp. 29-30.
- <sup>8</sup> Sclar and HDR, p. 14.
- <sup>9</sup> “Backgrounder, ‘Pitfalls of Air Traffic Control Privatization,’” Issued by Professor Elliott Sclar and HDR’s Management Consulting Group (news release), February 2003, p. 2.
- <sup>10</sup> Sclar and HDR, p. 4.
- <sup>11</sup> *Ibid.*, p. 11.
- <sup>12</sup> William B. Scott, “Technology Is Key to Australia’s ATC,” *Aviation Week & Space Technology*, Oct. 22, 2001.
- <sup>13</sup> Backgrounder, p. 3.
- <sup>14</sup> International Civil Aviation Organization, *Manual on Route Air Navigation Facility Economics*, Montreal, International Civil Aviation Organization, 1986, p. 26.
- <sup>15</sup> William B. Scott, “Technology Is Key to Australia’s ATC.”
- <sup>16</sup> William B. Scott, “Centers Control 11% of Earth’s Airspace,” *Aviation Week & Space Technology*, Oct. 22, 2001.
- <sup>17</sup> U.S. Department of Transportation, Office of Inspector General, *Audit Report: Contract Towers: Observations on FAA’s Study of Expanding the Program*, AV-2000-079, (Washington, D.C.: U.S. Department of Transportation, April 11, 2000.)
- <sup>18</sup> “2001 IATA Eagle Awards,” International Air Transport Association news release, 28 May, 2001.
- <sup>19</sup> “2002 IATA Eagle Awards,” International Air Transport Association news release, June 3, 2002.





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