AIR TRAFFIC CONTROL

Congress should

- move air traffic control operations from the Federal Aviation Administration to a self-funded nonprofit corporation outside the government.

The nation's air traffic control (ATC) system is currently operated by the Federal Aviation Administration (FAA). ATC is a high-technology business, but we are still running it as an old-fashioned bureaucracy from Washington, DC. The FAA is inflexible and slow moving, and it has a history of cost overruns and delays on major projects.

In recent decades, many nations have partly or fully separated their ATC systems from their governments. In 1996, Canada moved its ATC to a private nonprofit corporation, Nav Canada. That reform was the model for an FAA restructuring bill that passed the House transportation committee in 2016 and in a revised form in 2017. Unfortunately, that reform effort stalled despite support from the administration, most airlines, the air traffic controllers union, and many experts.

Nonetheless, ATC reform will return to the congressional agenda at some point because trying to run a dynamic technology business out of the federal bureaucracy makes no sense. Moving ATC operations out of the government would improve efficiency and spur innovation. The benefits of improved ATC would include shorter flight times, fewer delays, greater safety, and lower fuel costs.

Management and Technology Failures

Air traffic control is transitioning from old technologies, such as radar and voice radio, to newer technologies, such as satellite-based navigation. But the FAA has struggled to make the needed reforms under the NextGen array of investment projects. Many reports by federal auditors have found cost overruns

and slow progress on NextGen projects. In congressional testimony in 2019, the airline trade association, Airlines for America, agreed with federal auditors that the FAA's "modernization efforts have been plagued by significant cost overruns, delays and lack of benefits to users of the system." In a congressional roundtable with aviation stakeholders in 2021, "Most of the discussion involved the broad frustration at the lengthy timetable to implement the unfinished elements of NextGen Air Traffic Control," reported the Eno Center for Transportation.

In a study on the FAA's performance for the Hudson Institute, ATC expert Robert Poole found that the agency is risk averse, is slow to make decisions, and mismanages procurement. It loses skilled people to private industry because of a lack of pay flexibility and frustration with the government work environment. Poole found that the FAA is "particularly resistant to high-potential innovations that would disrupt its own institutional status quo."

In critiquing the structure of our ATC system, Jeff Davis of the Eno Center noted, "It is widely acknowledged that federal procurement rules make it difficult for agencies to carry out large high-tech procurement." Dorothy Robyn of the Brookings Institution points to other problems of running ATC inside a government agency: Congress has "long blocked large-scale consolidation of the FAA's aging and inefficient facilities," and it "micromanages FAA spending on investment and maintenance."

These problems can be tackled by separating ATC from direct federal control. Such a reform would remove the conflict of interest arising from the FAA's both operating ATC and overseeing aviation safety. The reform would increase transparency because hidden decisions now made internally within the FAA would be made public. The International Civil Aviation Organization recommends arm's-length separation between safety regulation and ATC provision.

The FAA's slowness on innovation is illustrated by recent moves abroad toward remote or virtual towers for ATC. Airport towers with big windows for controllers to see runways may be on the way out. They are starting to be replaced by visual and infrared cameras on masts and runways able to pan and zoom, with the electronic feed going to control centers either nearby or miles away. The feeds are displayed on wall-sized monitors overlaid with flight and sensor information. Remote towers promise superior ATC performance at night and during bad weather, and they can reduce costs, which particularly benefits smaller airports. European and Canadian companies are pioneering the technologies.

The FAA has been modestly supportive of two nonfederal demonstration projects of remote towers in Colorado and Virginia, but it has been too risk averse to embrace the technology, reports Robert Poole. Meanwhile, Belgium, Denmark, Germany, the Netherlands, Norway, Spain, Sweden, and the United

Kingdom are moving ahead with remote towers. Norway is a pioneer, and by the end of 2022 will service 15 of its airports remotely from a central ATC facility. The UK's privatized ATC company, NATS, is also an innovator. According to *Airport Technology* magazine, London City Airport in 2021 became the "first major international airport globally to be entirely controlled by a virtual system. . . . Nearly 16 high-definition cameras and sensors have been deployed on the mast for capturing a 360-degree view of the airfield. The view is then transmitted to the control room in NATS' air traffic control centre via fibre connections."

As a high-tech industry, ATC will keep moving forward globally, but the United States will continue to lag if it retains a bureaucratic government system. This situation matters because rising demands for air travel will make our airspace more crowded and will strain the ATC system. Transitioning to new ATC technologies promises to expand airspace capacity, increase safety, and save fuel by allowing aircraft to fly more direct routes.

Canada's Reforms

Dozens of nations have restructured their air traffic control systems to separate them from government budgets and political micromanagement. Canada privatized its system in 1996 in the form of a self-funded nonprofit corporation, Nav Canada. The Canadian reform has been very successful. Nav Canada has won three International Air Transport Association (IATA) Eagle Awards as the world's best ATC provider. The IATA has said that Nav Canada is a "global leader in delivering top-class performance" and that its "strong track record of working closely with its customers to improve performance through regular and meaningful consultations, combined with technical and operational investments supported by extensive cost-benefit analysis, place it at the forefront of the industry's air navigation service providers."

In Canada, funding was changed from a government ticket tax to direct charges on aircraft operators for services provided. Nav Canada charges for terminal services, flying through Canadian airspace, and oceanic services. Those cost-based charges are a more efficient way to price ATC services than the U.S. system, which is mainly based on ticket taxes.

Nav Canada is a private monopoly, so there might be concerns that its user charges would rise excessively. But that has not happened. Indeed, Nav Canada's real customer charges have fallen as efficiency has increased. The system is handling more traffic than before privatization, but with fewer employees. One reason for the good performance is that airlines and other aviation stakeholders appoint members of Nav Canada's corporate board, and those stakeholders have a strong interest in increasing both efficiency and safety.

Another advantage of privatization is innovation. Nav Canada is praised for its development of new technologies. Robert Poole noted, "The technical expertise at Nav Canada has led to a thriving business marketing innovative ATC hardware and software and advising other air navigation service providers." In a 2013 address, Nav Canada's chair Nicholas Geer said that the company has "sold and installed our home-grown technology around the world from Australia to Hong Kong to Dubai, and all over the UK and Europe."

In testimony to the Senate in May 2015, the head of the U.S. National Air Traffic Controllers Association, Paul Rinaldi, noted that Canada's system has "the air traffic controller, the engineer, and the manufacturer working together from conceptual stage all the way through to training, implementation, and deployment within their facilities. And what that does is it saves time and money. And they actually are developing probably the best equipment out there, and they are selling it around the world."

In 2016 and 2017, the National Air Traffic Controllers Association backed U.S. House bills that would have moved our ATC system into a nonprofit corporate structure. It may seem odd that a labor union would be supportive of such reforms, but the controllers have been concerned that our system is not receiving the steady funding and advanced technology it needs. A self-funded ATC company would create more financial stability than the current system, which has been buffeted by federal budget battles.

Reforms Are Long Overdue

Since the 1970s, various studies and commissions have recommended restructuring the U.S. air traffic control system to move it partly or fully out of the federal government. Numerous studies, such as a 2005 Government Accountability Office report, have found that commercialized ATC systems in countries such as Australia, Canada, Germany, New Zealand, and the United Kingdom had cut costs, invested in new technologies, and maintained or increased safety levels.

The Canadian reform has been particularly impressive, and it captured the attention of former House Transportation and Infrastructure Committee chair Bill Shuster. His bill embracing a Canadian-style restructuring passed through committee in 2016 and again in 2017. The Trump administration supported the thrust of the Shuster bill in 2017. Alas, that support was not enough to move legislation over the finish line in Congress.

Privatization would provide the flexibility, incentives, and funding needed for ATC managers to increase efficiency and pursue innovation. Innovation is the key to reducing flight times, increasing airspace capacity, and cutting fuel costs. In an October 18, 2015, interview in the *Wall Street Journal*, the

head of Nav Canada, John Crichton, was blunt: "This business of ours has evolved long past the time when government should be in it. . . . Governments are not suited to run . . . dynamic, high-tech, 24-hour businesses."

Suggested Readings

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