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| http://reason.org/files/reasontorchblueback.png | ATC REFORM NEWSBy Robert W. Poole, Jr., Searle Freedom Trust Transportation Fellow and Director of Transportation Policy, REASON FOUNDATION  |

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| >[**Issue 128**](http://click.email.reason.org/?qs=cc02d27cfab31c244e846c6ecaff6ded6a268c430723aa4732356efca828bf37) | **November/December 2015** | [**More News**](http://click.email.reason.org/?qs=cc02d27cfab31c24052326c3ba6d77733969cd6c94787e6e7a1835ed8c3ce715) | [**reason.org**](http://click.email.reason.org/?qs=cc02d27cfab31c24085895364cdb939f6e97955d293af39953bce5d22b2fa3ee) | [**Bio**](http://click.email.reason.org/?qs=cc02d27cfab31c24dba8b94eff638467ec4cfb6e2896fd61ec9b52e306e2ba23) |

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**Delta Goes After Nav Canada**Delta's anti-corporatization point man Steve Dickson has upped the ante in the airline's lone-wolf campaign against proposals to convert the Air Traffic Organization into a self-funded, federally chartered nonprofit corporation governed by a stakeholder board. While his previous statements (noted last issue) focused on not rocking the boat regarding NextGen's modest progress, his latest efforts include demonstrably false claims about Nav Canada, the poster child for U.S. ATC reform. Dickson made these points in a Nov. 15th op-ed in *Crain's New York Business* and in a Nov. 23rd interview with *The Cranky Flier*.First he trotted out the old chestnut about the relative scale of U.S. and Canadian airspace. This is silly, because nobody is proposing to create a U.S. ATC organization from scratch. As former ATO Chief Operating Officer David Grizzle has pointed out, the ATO is already at the scale needed to do the job. All we are talking about is improving its funding, governance, and organizational culture. It's reform-in-place, not creating something brand new from scratch.Far more serious are these three bullet points about Nav Canada in his *Crain's New York* piece:* Zero quantifiable data showing operational efficiency or improvements;
* Zero data to suggest cost savings to airlines or other customers;
* Zero analytical data comparing public vs. private ownership.

I am not a lawyer, but my amateur impression is that these may be libelously false statements, as I will demonstrate.First, consider the comparative track record of the ATO and Nav Canada between 2005 and 2012. Data from CANSO and Eurocontrol performance evaluations show that in 2012 IFR movements per controller were 5,966 for Nav Canada vs. 2,817 for the ATO. Another measure, IFR flight hours per controller, was closer, at 1,739 for Nav Canada and 1,729 for ATO. Between 2005 and 2012, Nav Canada's IFR/controller numbers increased, while the ATO's decreased by 12%. And the ATO's flight hours per controller remained flat over that period, while Nav Canada's increased by 15%. On cost savings, the same data sources show that Nav Canada's cost per IFR movement in 2012 was $84, compared with $287 for the ATO. And while Nav Canada's number remained flat over this period, the ATO's cost increased by 57%. Nav Canada's 2012 cost per IFR flight hour was $285, compared with $436 for the ATO. And on this measure, the Nav Canada cost trended downward since 2005, whereas the ATO's went up 35%. These are not the result of magic. They are the result of a stakeholder board making decisions to operate Nav Canada as a business. For example, in its first three years, it eliminated about a thousand administrative positions, closed four of six regional offices, and consolidated 29 flight service stations into eight flight information centers. It also made changes to obtain considerably more bang for its bucks in capital modernization investments. There are real economies of scale in air traffic control, so the fact that Nav Canada, at one-ninth the size of the ATO, has significantly lower unit costs than ATO suggests the potential for large cost savings once the ATO is corporatized.As for "private" versus government ownership, there is currently no privately "owned" ANSP. Nav Canada has title to the assets of Canada's ATC system, but there are no private owners. It is a non-share corporation, operating under a corporate charter enacted by Canadian legislators. Similarly, converting the ATO into a federally chartered, nonprofit ATC corporation would give it title to the assets, but those assets would, in effect, be held in trust for the benefit of airspace users, with a board representing those users.The benefits of reforming funding, governance, and organizational culture do not depend on "public" vs. "private" status, per se. Other corporatized ANSPs (such as Airservices Australia, Airways New Zealand, DFS, and NATS, in addition to Nav Canada) have various organizational forms, but share several key attributes. * They have been de-politicized, because they obtain all their revenues from their customers.
* They are accountable to their aviation customers, not to politicians.
* They can finance major capital investments by issuing revenue bonds.
* And they can make procurement decisions in a businesslike manner, without the risk of political intervention.

These attributes have led to organizational cultures that have yielded much faster progress on modernization—such as nationwide ADS-B in use today across Australia, Canada, and the North Atlantic, controller-pilot data link in use today across Canada and the North Atlantic, and electronic flight strips in use today in just about every large ANSP *except* the ATO. Many of us have puzzled over why Delta is taking this strange position on ATC corporatization, but nobody has come up with a satisfactory explanation. One clue may be in Dickson's *Cranky Flier* interview. In response to a question about whether Delta fears the situation post-corporatization would be worse than the status quo, Dickson replied, "We feel like it will be the latter where there's a certain loss of control." In answer to a follow-up question, he elaborated: "At Nav Canada . . . the operators are about a third of that board. There are a lot of other stakeholders that get involved. You don't necessarily have control over how decisions are made that you'd like to have." After being challenged on that, his reply referred to Delta's active role on the NextGen Advisory Committee. That's a laugh. The NAC has *28 stakeholder members*, and is only advisory. It can nibble around the edges of ATC policy, but has no decision-making power.A real stakeholder board of directors, representing all key aviation stakeholders (but not 28—somewhere between a dozen and 15), would be far better than having 535 members of Congress acting as the de-factor board of directors plus a well-meaning stakeholder advisory group. That stakeholder board's decisions would properly reflect a rough-and-ready consensus on key questions among airlines, business aviation, general aviation, airports, the government, and the traveling public. This concept has been embraced by all the other major airlines, represented by Airlines for America. It would be a vast improvement over the status quo.[» return to top](#top) **Bolen and NBAA Opt for the Status Quo**Speaking of stakeholder boards, at the Air Traffic Control Association's 60th annual conference, I was once again on a panel dealing with ATC corporatization—along with (among others) Ed Bolen, head of the National Business Aviation Association. NBAA has been rousing its members to oppose corporatization, always referring to it as "privatization" and attacking the concept of user fees. These days Bolen increasingly portrays the current effort as an "airline plan" that would "allow commercial carriers to run the system themselves." On our panel, he referred to a stakeholder board as letting "special interests" make the key decisions about air traffic control, rather than "our elected representatives." That completely misrepresents the proposed nonprofit corporation, governed by a board carefully balanced to represent all key aviation stakeholders. How ironic that Delta opposes this plan because it would *not* permit the airlines to control the board, while all the other airlines see the logic of the stakeholder board approach, and how well it has worked for Nav Canada over nearly 20 years.During our panel, Bolen did not rail against ATC user fees as he usually does, but at NBAA's Business Aviation Convention and Exhibition mid-November, he and fellow bizav honcho Pete Bunce (GAMA) let fly with misrepresentations. "There's no way that general aviation can accept a user fee system; the bureaucracy would kill us," declared Bunce. Unless he's been living under a blanket somewhere, he has to know that general aviation pilots in Canada pay only a small annual fee based on the weight of their plane: $68 for single-engine piston and $227 for piston planes between 2 and 3 tons. There are no per-transaction or per-flight fees for GA. None. And there is no crushing bureaucracy. As for the business jets that are GAMA and NBAA's real concern, in Canada they pay weight-distance fees for each flight, because they use all the same ATC services as jet airliners. But since the fees are based on weight, they pay much less than airliners do—and it's a trivial addition to the overall cost of owning and operating a business jet. ATC fees based on weight and distance are used in every civilized country except the USA. They are also the ICAO standard way to pay for ATC, not some invention of U.S. airlines. And as for the creation of a whole new billing bureaucracy that Bolen has often warned about, it's not needed. There are already three global ATC billing services available—from CANSO, from Eurocontrol, and from IATA. Billing costs at Nav Canada, which has its own system, are trivial.Bolen and other advocates of the status quo tout the existing GA and turbine fuel taxes as perfect user taxes, because there is no billing of users and the cost of collection is low, since the tax collection takes place at fuel wholesalers. But the real cost of any federal user tax is that the money gets sent to the U.S. Treasury, not to the ATC provider. It can only be spent when one set of congressional committees authorizes such spending, and another set of committees appropriates the money. And because it is *taxpayers' money*, Congress therefore specifies where and how it can be spent—and that means audits of everything under the sun by the GAO, the Inspector General, and political and budgetary directives from OMB, the Secretary of Transportation, and the FAA Administrator. It is a telling commentary that all three former Chief Operating Officers of the ATO—Russ Chew, Hank Krakowski, and David Grizzle—concluded that it is impossible to run the ATO as business under that kind of micromanagement, and that corporatization is the most sensible remedy.[» return to top](#top) **Remote Towers Moving Rapidly**Another hot topic for discussion at the ATCA conference was remote towers. The first phase of the Saab project at the Leesburg, VA airport had concluded, with generally favorable reactions from all participants, including the NATCA controllers who observed the displays set up in the prototype remote tower center at the airport for the three-month "shadow mode" period. Their feedback is helping Saab to fine-tune the system, in preparation for a January presentation to FAA, seeking permission for a live test (actually managing traffic using the system) next spring. Randall Burdette, the Virginia aviation director, told *Air Transport World* after the test period that at least eight additional airports in the state would benefit from having remote tower capability, and added that, "I think in my lifetime that this will be more standard than the exception."ATCA panelists on the subject were similarly upbeat about the prospects—except for Patrick Peters, representing IFATCA (the international federation of controller organizations). While seeing remote towers as an opportunity to expand tower services to airports currently lacking them, the bulk of his comments were cautionary, and he told us that IFATCA policy is to oppose controlling multiple airports from one center.But that is exactly what is nearing reality in Europe. Norwegian ANSP Avinor has announced plans, backed up by contracts with Kongsburg Defense and Indra Navia, to develop a remote tower center (RTC) at Bodo to serve as many as 15 small airports. Sweden's operational RTC at Sundsvaal already controls traffic at Ornskoldsvik airport, and will soon add the airports at Sundsvaal and Linkoping. Ireland's IAA has selected Saab to build an RTC in Dublin to provide tower services at Cork and Shannon. And DFS, Germany's ANSP, has selected Frequentis to develop an RTC at Leipzig to serve the airports at Saarbrucken, Erfurt, and Dresden. Remote towers can address the dilemma facing many small U.S. airports that either lack a tower or have a tower whose costs are difficult to justify—some of which have gotten a contract tower thanks to political influence, or which no longer meet FAA criteria for such a tower, but keep it due to political intervention. This is one way that a corporatized Air Traffic Organization could ensure "access" to the national airspace system for small towns without busting its budget.On the other end of the scale, consider the high costs of replacement towers at major airports, or the recent addition of a third tower at Chicago O'Hare airport. Built at a cost of $41 million, the tower was called for because controllers in the existing two towers could not see all of the new runways recently put into operation at ORD. But this 20th century justification is rather weak, when you realize that controllers in towers cannot really "see" aircraft at night, in fog, or in various other kinds of inclement weather. Or when you remember that TRACONs and Centers don't have windows; their controllers rely 100% on electronic information and visual displays to keep track of air traffic. That's all a remote tower amounts to: a TRACON or Center for local air traffic. Why does it need to be located on the airport, with its staff several hundred feet in the air? Here's another case where we can expect some significant change from a corporatized ATO, running air traffic management as a business. As panelist Simon Hocquard of NATS remarked, "Maybe in 10 years there will be no towers built."[» return to top](#top) **Air Traffic Control for Drones?**Yes, I know the proper aviation term is UAV (unmanned aerial vehicle) or RPAS (remotely piloted aircraft system), but with up to a million small (under 55 lb.) "drones" potentially in U.S. consumers' hands by year-end, we are now facing a real airspace dilemma. With FAA desperately playing catch-up via a hastily concocted drone registration program, it was refreshing to hear from Dave Vos, head of Google's Project Wing, who gave the Monday morning keynote presentation at the ATCA convention in November. Like Amazon, Google envisions creating huge fleets of small UAVs to serve delivery and other markets—and, like Amazon, has been doing serious R&D on how these vehicles can fly safely, especially in urban areas. Neither company expects (or wants) the FAA to attempt to manage the projected huge volumes of small UAVs flying at low altitudes (below 500 ft.). What Google has proposed is the creation of Airspace Service Providers (ASPs) in various areas, potentially overlapping, to provide assistance to vehicle owner/operators in identifying their vehicles to other airspace users, providing real-time airspace data, enabling drones to safely avoid other air vehicles, and serving as an interface with the formal ATC system. Key to all this would be a very low-cost, light-weight ADS-B device on every air vehicle in low-altitude airspace (including helicopters which do much of their flying there), reliance on existing communications systems such as cell-phone towers, and use of vehicle-to-vehicle (V2V) systems for communicating.While refreshing, Vos's presentation raised numerous questions, for which some of his answers were pretty vague. How to be sure everybody registers? Work with the hobbyist community (e.g., Association for Model Aeronautics). Use of UAVs/drones by bad guys? We need secure identification. How will the ASPs be paid for? Every user needs to pay for services used. Well yes, but how?Both Amazon and Google had presented at the NASA-Ames UAS Traffic Management (UTM) Convention, held at Moffett Field in Silicon Valley in late July. Amazon got a lot of coverage of its proposal that low-altitude airspace be divided up, with 0 to 200 ft. available for low-speed, hobbyist and commercial traffic; 200-400 ft. for higher-speed commercial traffic mostly flying autonomously, a no-fly buffer zone between 400 and 500 ft., and conventional airspace under direct FAA control above 500 ft. Like Google, Amazon presumed that the need to organize and separate hundreds of thousands of small UAVs would be beyond FAA's capabilities; hence the need to delegate control functions to unspecified local organizations of UAV operators, interfaced with FAA for coordination purposes.Among the other companies actively working with NASA-Ames on UTM questions are Verizon, Precision Hawk, and Harris Corp. The latter, thanks to acquiring ADS-B ground station operator Exelis, is especially keen to see ADS-B as a key surveillance technology for UAVs. But in addition to the technology challenge of producing very small, very cheap ADS-B boxes for small UAVs, there is the huge problem of inadequate capacity in the 1090 MHz band used for ADS-B communications. And there is also the question of how to ensure that every small UAS (and all helicopters) get equipped so they are visible to whatever systems are safely separating all this traffic.These are clearly early days in solving all these problems, which leaves the country (and the FAA) in a major dilemma, if demand for small UAVs balloons as the industry expects. Still, it's refreshing to see major technology companies willing to put large amounts of time, effort, and money into coming up with solutions.[» return to top](#top) **Two Major ANSPs Set for Privatization**In recent months the governments of Italy and the U.K. have each announced plans to sell their ownership stakes in their ANSPs to investors. Allowing outside investors to buy control is "privatization" in a meaningful sense, as opposed to the kind of reform-in-place that turned the ATC part of Transport Canada into nonprofit corporation Nav Canada—and is currently proposed for the Air Traffic Organization in this country.In both European cases, the respective national governments are seeking to raise capital to improve their fiscal condition by divesting ownership of commercially viable infrastructure. The Italian government's plan includes not only ENAV (the ANSP) but also Poste Italiane (postal service) and Ferrovie (railroad). Each will be sold next year via an initial public offering on the Milan Stock Exchange. A consortium of six global investment banks has been selected to manage the ENAV IPO.In the U.K., the government's Autumn Statement included divestitures estimated to be worth $7.5 billion, including the government's 49% stake in NATS, the ANSP. The value of that stake is estimated at $750 million. It is not clear whether the sale will be via an IPO as in Italy or via some kind of auction of pre-qualified bidders. Several years ago when the Airline Group decided to sell the majority of its stake in NATS, there was political controversy over the prospect that Germany's DFS might buy that stake, and in the end it was sold to university pension fund USS. (In fact, what Europe's fragmented ATC system needs is mergers and consolidation, with the weaker and less-efficient ANSPs being bought up by more competent ones.)For-profit status is one of three options for monopoly utility services—and remember that NATS is already a for-profit company. But because NATS is a monopoly, its rates are subject to government regulation. Purely government utility monopolies are presumed to not need regulation, which is a naïve presumption but widely adopted. The third alternative is the nonprofit user co-op, in which customers are the principal stakeholders, and self-regulation is considered workable. The United States has thousands of user-co-ops—in electricity, telecoms, water service, agriculture, and credit unions—and they seem to work fine with self-regulation. And Nav Canada is basically a user co-op, as was the originator of U.S. air traffic control, ARINC. I still prefer this model as the best fit for the kind of business ATC is. [» return to top](#top) **News Notes**Brookings Blog on ATC Corporatization. I am remiss in not having previously noted an outstanding blog post making the case for corporatization of the U.S. ATC system. "It's Time to Corporatize Air Traffic Control (the Right Way)" is by Dorothy Robyn, who worked on this issue in the Clinton White House and was a part of the Eno Transportation Center's 2014-15 working group on ATC reform. The piece includes a critique of the idea of corporatizing the entire FAA, which would violate the principle of separating safety regulation from ATC service provision. ([www.brookings.edu/blogs/fixgov/posts/2015/09/28-corporatize-air-traffic-control-robyn](http://click.email.reason.org/?qs=cc02d27cfab31c24bb8876a45f3a983030d03ab688975ce29fbf674af3ff0edc))Space-Based ADS-B Gets Important Boost. On November 2nd, the European Parliament adopted a resolution urging the allocation of electromagnetic spectrum needed for global space-based ADS-B surveillance. And 10 days later, the International Telecommunications Union (ITU) adopted a primary allocation in the 1090 MHz frequency band for reception of ADS-B signals from aircraft by satellites. Space-based ADS-B company Aireon had been calling for such an allocation, and its CEO Don Thoma called the ITU's action "a victory for the international aviation industry: airlines, ANSPs, and the traveling public as a whole." Electronic Flight Strips Going Global—Except Here. NATS, the UK's corporatized ANSP, announced in October that it is installing electronic flight strips in the control tower at Newcastle. That's just the latest NATS facility to be so-equipped, with NAVCANstrips from Nav Canada. That electronic product is installed at NATS en-route centers Prestwick and Swanwick, at all three major London airports, and at a growing number of other facilities. NAVCANstrips are also installed at a number of towers in Australia and at the Melbourne center, at key facilities in the Dutch Caribbean, at Dubai's two major airports, at Copenhagen Airport, and in more than 80 Nav Canada facilities across that country. Alas, neither the FAA's ERAM system for its 20 centers nor the TAMR modernization program for TRACONs includes electronic flight strips. U.S. controllers will still be using paper flight strips well into the next decade. ATC Commercialization Report Available Again. The only large-scale before/after study on the performance of commercialized/corporatized ATC systems is once again available. Sponsored by CANSO and carried out by MBS Ottawa, with the assistance of George Mason, McGill, and Syracuse Universities, the study was published in 2006. The research team collected before and after data on seven key performance indicators for 10 commercialized ANSPs. *Air Traffic Control Commercialization Policy: Has It Been Effective?* is an invaluable resource as this country considers corporatizing the Air Traffic Organization. You can download this report at no charge from [www.mbsottawa.com](http://click.email.reason.org/?qs=cc02d27cfab31c24f7bc1549290c79d2e163863c25df1cc927d0ebed42ccba25).Curacao Signs Up for Space-Based ADS-B. Over the past year or so, Aireon has signed many agreements with ANSPs to study whether and how they might subscribe to its space-based ADS-B service once it becomes operational in 2018. But aside from the founding ANSPs (Nav Canada, IAA, ENAV, and Naviair), others have been taking their time studying the benefits and costs. The Dutch Caribbean ANSP is the first non-investor to sign up for the service. As a result, the Curacao Flight Information Region (encompassing 300,000 sq. km. adjacent to Colombia, the Dominican Republic, Haiti, Jamaica, Puerto Rico, and Venezuela) will have 100% ADS-B surveillance as of 2018.Wide Area Multilateration for Cambodian Airports. Cambodian Air Traffic Services (CATS) has signed a contract with Thales for two wide area multilateration (WAM) systems for the terminal airspace of the airports at Siem Reap and Phnom Penh. The new WAM systems will be integrated with CATS' existing ADS-B system. Surveillance data from both systems will be processed and displayed by the Thales TopSky system at Phnom Penh. CATS, a subsidiary of Thai-based SAMART Corporation, provides both civil and military air traffic control throughout Cambodia.UPS Disconnecting ADS-B/In Systems. Though it was the U.S. pioneer in making use of ADS-B/In with an onboard cockpit display of traffic information on all its 757s and 767s, UPS quietly announced in October that this capability is being de-activated in all of those aircraft. The planes will continue to broadcast ADS-B/Out signals, as required of all such aircraft in controlled U.S. airspace by January 1, 2020. No explanation for the decision was provided in the company's internal memo, but it appears to be related to the absence of any announced FAA plan for ADS-B/In services.Airways New Zealand to Train Vietnam Controllers. In November, corporatized ANSP Airways New Zealand signed two Memoranda of Understanding with aviation authorities in Vietnam. The first is a five-year agreement under which Airways will be Vietnam Air Traffic Management Corporation's preferred training provider. This includes use of Airways' controller candidate selection program SureSelect and use of its Total Control simulators. The second MOU is with the Vietnam Aviation Academy, under which VAA's students will complete their ATC training in New Zealand as part of their degree in aviation management.More Free Route Airspace in Europe. Three projects have expanded the portions of European airspace where high-altitude flights can generally fly their preferred routes. The Northern European Functional Airspace Block (NEFAB) announced the implementation of free route airspace in November, encompassing the airspace of Estonia, Latvia, Finland, and Norway. NEFAB has worked with the Danish-Swedish FEB (DK-SE FAB) to permit common free-route flight planning with NEFAB. In Central Europe, free route airspace is available during lower-traffic night hours over Bosnia/Herzegovina, Croatia, Serbia, and Montenegro under the South-East Axis Free Route Airspace (SEAFRA) initiative. In addition, HungaroControl and ROMATSA are jointly managing night-time airspace under their Night Free Route Airspace Budapest/Bucharest (N-FRAB) effort. [» return to top](#top) **Quotable Quotes**"Since the early 1990s, a string of reports from presidentially appointed aviation commissions, government offices, and independent private sector experts have called into question the [FAA's] ability to deliver under its existing funding and governance structure. In May, the National Research Council issued a congressionally mandated report on NextGen. With no particular axe to grind, its criticisms echoed with the sound of decades' worth of stakeholder skepticism over NextGen's feasibility. . . . The United States prides itself on leading the world in safety, but how long will that claim hold when its ability to effect a technology-driven step change is hobbled by a monolithic, unwieldy bureaucracy that cannot achieve real reform. To quote transport expert Dorothy Robyn, 'air traffic control is a 24/7 technology-intensive service business trapped inside of a regulatory agency that is constrained by federal procurement and budget rules, burdened by a flawed financing system, and micro-managed by Congress and the Office of Management and Budget.' . . . With the opening of a policy window, the U.S. Congress must now start working on a world-class ATC system underpinned by an appropriate governance structure. That will take bravery, as it must first address why it is so signally failing in its present incarnation."—Aimee Turner, Editorial, *Air Traffic Management*, Issue 4, 2015"There has been the same [ATC] business model in place for the last 100 years almost, certainly, at least since the second World War. We are now in a new era—we can use new technology and apply the right rules and regulations to increase traffic and reduce the environmental footprint. I often compare this to the telecoms industry. Things didn't change for a long time, and then suddenly, 15 years ago, everyone agreed on the GSM (global system for mobile) standard and it changed things completely. This could do a similar thing for air traffic."—Per Ahl, VP Air Traffic Management, Saab, "Remote Tower Technology: New Era in Air Traffic Control?" *Airport Technology*, Oct. 22, 2015"The air traffic management system was designed to tell dumb aircraft what to do. Now, the aircraft are considerably more intelligent than that—but we are yet to recognize that fact, or to take advantage of it. With the volume of aircraft in the system [worldwide] that the conservative Boeing forecasts predict, we must learn how to take advantage of what the aircraft can offer . . . . Otherwise, we will be overwhelmed. There are a number of examples: when the aircraft is at cruise altitude and stable, why not let it self-separate? Why devote controller resources to doing something that the airframes can do better? The controllers are better deployed doing things that need their intervention and focus. When an aircraft approaches a busy airport, we need to be much smarter about how to manage its arrival and its departure timings to minimize passenger inconvenience. The airline and the airport need to know what the airframe can do to streamline the entire process and what the airline requirements are."—Neil Planzer, VP Air Traffic Management, Boeing Digital Aviation, "The Airframe Is Part of the Future for ATM," *Aviation Intelligence Reporter*, December 2015/January 2016 "Most ANSPs in the [Middle East] region are owned and operated by the government bodies that regulate them. This can create conflicts of interest and hinder the implementation of performance-driven air navigation services. CANSO believes that the same organization having responsibility for both regulation and service provision of air traffic management acts as a constraint. Proper separation between regulation and service provision has the clear potential to unlock value, enabling ANSPs to concentrate on the delivery of efficient, cost-effective and customer-oriented air navigation services."—Jeff Poole, Director General, CANSO, Q & A on Middle East Air Traffic Control, *Air Traffic Management*, Issue 3, 2015, p. 39[» return to top](#top) Reason FoundationThis email was sent to jheimlich@airlines.org, from Robert W. Poole, Jr. at **Reason Foundation**5737 Mesmer Avenue Los Angeles, CA, 90230, USAIf you would like to change your preferences for email communications from Reason, you may reply to this email, or visit our [Profile Center.](http://click.email.reason.org/?qs=cc02d27cfab31c242f486773423aa08cfa3b8778107cb1cdfdfc3d37779e1316) To unsubscribe from all future email communications from Reason, [click here.](http://click.email.reason.org/?qs=cc02d27cfab31c243232ce6363de59f9220b7e4859e993720680c6647647e2e9) |
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