



Annual Privatization Report 2015



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A. Airport Privatization

1. Overview

Since British Prime Minister Margaret Thatcher's government privatized the former British Airports Authority in 1987, airport privatization has become a global phenomenon. Governments in Europe, Asia, Australia and New Zealand, Latin America and the Caribbean subsequently privatized major airports. The International Civil Aviation Organization (ICAO) in 2012 issued a report titled, "Manual on Privatization in the Provision of Airports and Air Navigation Service" (Document 9980). It explains how airport privatization fits into international aviation law and replaces an earlier document, ICAO Circular 284 from 2002. In May 2013, Airports Council International Director General Angela Gittens told an Aero Club of Washington audience that 450 commercial airports worldwide have some form of private-sector participation in their management or ownership.

In Europe, the primary mode of airport privatization is sale, either in whole or (more commonly) in part. U.K. airports, with what the government considers to be market power (currently only in London), are subject to regulation of their charges to airlines. Elsewhere in the world, the primary mode of privatization has been via a long-term lease or concession. This is the case in Australia, Latin America and the Caribbean. Some of the larger privatized airports have acquired full or partial ownership (or concession interests) in other airports. This process has created a global airport industry, with significant investment recently coming from pension funds, infrastructure investment funds and sovereign wealth funds.

Table 1 is excerpted from a table of the world's 100 largest (by revenue) airport groups as of 2013, the most recent full-year figures available. Of these 100 largest airport entities, the 40 in the table are either fully or partially owned or controlled by investors (or were in the process of becoming so, as in Spain (AENA) and Japan (Kansai) at the time this 2013 table was prepared). Some of these global airport groups also manage overseas airports on a contract basis, without actually obtaining an ownership share. Several smaller airport companies had 2013 revenues below the threshold for inclusion in the top 100, so are not included in the table. Total 2013 revenue for the 40 airport companies was \$40.9 billion, which is 50.5% of the revenue of the entire top 100 airport groups. About two dozen of these airport companies are listed on stock exchanges around the world.

Airport Group	Global Rank*	Main Airports	2012 Revenue (\$M)	Privatization Status
Heathrow Airport Holdings	1	London Heathrow	\$4,150	Full
AENA Aeropuertos	2	Madrid	\$3,824	Under way
Aeroports de Paris	3	Paris de Gaulle and Orly	\$3,662	Partial
Fraport	4	Frankfurt	\$3,405	Partial
TAV Airports	10	Istanbul & Ankara	\$1,602	Full
Incheon International Airport	13	Seoul	\$1,540	Planned
Airports of Thailand	16	Bangkok	\$1,365	Partial
Malaysia Airports Holdings	18	Kuala Lumpur	\$1,291	Partial
New Kansai International Airport	19	Kansai, Osaka	\$1,262	Under way
Beijing Capital International Airport Group	21	Beijing	\$1,176	Partial
Manchester Airports Group	23	Manchester, London Stansted	\$1,070	Partial
Southern Cross Airport Holdings	24	Sydney	\$1,063	Full
Flughafen Zürich	25	Zürich	\$1,055	Full
GMR Airports	26	New Delhi, Hyderabad	\$ 990	Partial
SEA Aeroporti di Milano	27	Milan Malpensa and Linate	\$ 963	Partial
Gatwick Airport	28	London Gatwick	\$ 947	Full
Aeroporti di Roma	30	Rome Fiumicino and Ciampino	\$ 930	Full
Guangzhou Baiyun International	34	Guangzhou	\$ 837	Partial
Flughafen Wien	35	Vienna	\$ 827	Full
Airports Company South Africa	39	Johannesburg, Cape Town	\$ 699	Partial
ANA Aeroportos de Portugal	42	Lisbon	\$ 659	Full
Australia Pacific Airports	43	Melbourne	\$ 655	Full
Copenhagen Airports	44	Copenhagen	\$ 650	Partial
Brussels Airport Company	46	Brussels	\$ 583	Full
Düsseldorf Airport	48	Düsseldorf	\$ 571	Partial
Brisbane Airport	49	Brisbane	\$ 539	Partial
Aeropuertos Argentina 2000	50	Buenos Aires EZE and AEP	\$ 538	Full
Aeropuertos del Sureste (ASUR)	59	Cancun	\$ 423	Full
Perth Airport	62	Perth	\$ 416	Full
Grupo Aeroportuario del Pacifico (GAP)	67	Guadalajara, Tijuana	\$ 406	Full
Auckland International Airport	71	Auckland	\$ 368	Partial
Athens International	72	Athens	\$ 362	Partial
Flughafen Hamburg	75	Hamburg	\$ 338	Partial
Abertis Airports	76	Montego Bay	\$ 337	Full
Budapest Ferenc Liszt International	78	Budapest	\$ 310	Full
Aeroports de la Côte d'Azur	83	Nice	\$ 296	Partial
Operadora Mexicana de Aeropuertos (OMA)	88	Acapulco, Monterrey	\$ 238	Full
SAVE Group	92	Venice	\$ 193	Partial
Hannover Airport	96	Hannover	\$ 183	Partial
Birmingham Airport Holdings	97	Birmingham	\$ 181	Partial

^{*}Source: "Airport Group Financials," Airline Business, November 2014.

2. Airport Industry Changes

After some major changes in 2013, the global airport industry experienced less trading of assets among companies in 2014. Spanish infrastructure company Abertis continued divesting its airport interests to refocus the company on its surface transportation assets (mostly toll roads). In 2014 Abertis reached an agreement to sell its stake in Grupo Aeropuertos del Pacifico (GAP), the concessionaire for Mexican airports including Guadalajara and Tijuana. Its only remaining airport is MBJ, the concessionaire for Montego Bay Airport in Jamaica (which *Public Works Financing* says it has put up for sale).

Meanwhile, Spain's Ferrovial, owner of the largest fraction of Heathrow Airport Holdings (25%), has resumed investing in the airport sector after several years of divestiture (including the mandatory sales of London Gatwick and Stansted Airports). In 2014 it reached an agreement to acquire—from Heathrow Airport Holdings—50% of Aberdeen, Glasgow and Southampton Airports in the U.K., alongside 50% partner Macquarie European Infrastructure Fund. The total price was \$1.7 billion when the sale was completed in December 2014. HAH's pension fund part-owners wanted to divest from smaller airports to focus their investment on Heathrow itself. Ferrovial has also purchased an initial stake in the impending privatization of giant Spanish airport company AENA (see discussion below).

Also in the U.K., the Macquarie fund agreed to sell its 50% interest in Bristol Airport to Ontario Teachers' Pension Plan, which already owned the other 50%.

A kind of reverse privatization occurred in Australia in 2013. Future Fund, set up by the national government in 2006 to strengthen the asset base of government pension funds, spent \$1.8 billion to acquire the airport assets of Australian Infrastructure Fund. The portfolio included minority stakes in 14 projects, all but one in the airport sector (and 10 of which are in Australia, including stakes in Melbourne, Perth and Sydney Airports). The acquisition boosted Future Fund's infrastructure portfolio to A\$7.3 billion, representing 8% of its assets.

3. Global Airport Privatization

The largest airport privatization activity in 2014 was in Spain and Japan, with the launch of the privatization process for AENA in the former and for New Kansai International Airport in the latter.

European Developments

Spain's long-awaited privatization of its 46 airports (including Barcelona and Madrid) began with the separation of the air traffic control function from state aviation company AENA. The now-separate air navigation service provider is called ENAIRE. Next, the government sold 21% of airports company AENA to three "cornerstone" investors for \$2 billion. They are U.K.-based Children's Investment Fund, Ferrovial Aeropuertos, and Corporacion Financiera Alba. Another 28% of AENA will be sold to investors early in 2015 via an initial public offering (IPO) of shares on the Madrid stock exchange. That will leave the government with 51%. Based on the initial price for the first 21%, analysts expect the IPO to increase the overall proceeds to as much as \$5 billion.

France may be on the threshold of a new era of airport privatization. Until the early 2000s, all commercial airports in France were owned by the national government. Early in that decade, except for the Paris airports, the government devolved significant control of commercial airports to local governments, giving them partial ownership stakes. In 2006, Aeroports de Paris (AdP) was part-privatized via an initial public offering of shares, with additional small stakes subsequently acquired by Schiphol Group, Vinci and Predica; today the French government holds 50.6% of AdP. In 2009–2010 the government began allowing companies such as Keolis, SNC-Lavalin, and Vinci to enter into management contracts at secondary and tertiary airports. CAPA Centre for Aviation lists 22 such airports with such private-sector operators as of November 2014. In 2009–10, the government allowed Vinci to purchase 99% of four regional airports. And in 2012 the government announced plans to sell its ownership stakes in four primary airports: Bordeaux, Lyon, Montpellier and Toulouse—but those plans were put on hold due to the 2013 presidential election. That plan was revived in mid-2014, with Toulouse as the first candidate. Ten companies expressed interest in acquiring the offered 49.9% stake, and four consortia ended up submitting bids by October 31st: three French and one Asian. The surprise winner was the Asian team of Friedmann Pacific (Hong Kong) and Shandong Hi-Speed Corp. (China). Based on this sale, CAPA predicts that eight other airports will follow in 2015: Bordeaux, Lyon, Marseille, Montpellier, Nice, Strasbourg and two overseas—Fort de France (Martinique) and Saint-Denis (Reunion).

Greece's privatization agency, Hellenic Republic Asset Development Fund (HRADF), received three international bids for the first 14 of its 37 regional airports, being offered as a 30-year concession. The winner, announced in late November, was Germany-based Fraport. In December the HRADF began the privatization process for Athens International Airport by selecting a consultant to evaluate a concession for the remaining 55% still held by the government. It is also seeking bids to finance, develop and operate a new \$1 billion airport at Heraklion, on the island of Crete.

Greece's rival Turkey had expected its third Istanbul Airport project to be under way by 2014, after having selected a five-company consortium to develop it under a 25-year concession in 2013. But in February a court put the project on hold, over questions about the adequacy of the environmental impact of the planned six-runway airport estimated to cost nearly \$30 billion. Malaysia Airports Holdings, which already owned 60% of Istanbul's second airport (Sabiha Gökcen), purchased the other 40% from Turkish company the Limak Group.

Other privatization developments in Europe are the following:

- Austria: IFM Global Infrastructure Fund purchased a 29.9% stake in privatized Vienna Airport for €515 million.
- **Croatia:** A consortium led by Aeroports de Paris reached financial close on a \$331 million, 30-year concession to expand and modernize Zagreb Airport, the country's largest.
- **Denmark:** Copenhagen Airport, owned by Ontario Teachers' Pension Plan Board and Macquarie European Infrastructure Fund 3, refinanced \$1.05 billion in debt, to take advantage of lower interest rates.
- Hungary: Privatized Budapest Airport completed a \$1.4 billion debt refinancing. Budapest's largest shareholder is Canada's Public Sector Pension Investment Board.
- Italy: Corporacion America, which already owns minority stakes in the Florence and Pisa airports, has offered by buy out the government's remaining interest in both of them, offering \$110 million for Florence and \$55 million for Pisa.
- **Serbia:** The proposed concession for Belgrade Airport received 10 expressions of interest.
- Slovenia: Fraport acquired a 75.5% stake in Aerodrom Ljubljana from the government for €177 million.
- United Kingdom: AENA and its joint venture partner, Ardian, received the OK from the Luton Borough Council to expand the capacity of privatized Luton's terminal from 12 million to 18 million annual passengers, at a cost of \$172 million. The Rigby Group purchased 80.1% of Norwich Airport from majority shareholder Omniport.

Small airports in Europe face difficult times, thanks to a new policy from the European Commission reducing the extent of subsidy allowed to be provided by national governments. No state aid is permitted for airports with five million or more annual passengers, and airports with under three million will see their state aid phased out over

10 years. Those below 700,000 will still be eligible, at no more than 80% of previous subsidy levels.

Two small U.K. airports, formerly privatized, shut down in 2014 when their owners could not afford to continue losing money. Balfour Beatty Infrastructure could not find a buyer for ailing Blackpool Airport, and shut it down in October (though it was subsequently reopened by a new Balfour Beatty subsidiary as a general aviation airport). Infratil in 2013 sold money-losing Kent International Airport (in Manston) to Scottish entrepreneur Ann Gloag, but she could not turn it around and closed it down in May.

Asian Developments

In 2012 Japan created New Kansai International Airport (NKIA), merging the operations of island-based Kansai International Airport and inland Osaka International Airport. The new company developed a low-cost carrier terminal at Kansai, as well as implementing peak/off-peak pricing; those two changes helped the emergence of a new low-cost carrier market in Japan—and won NKIA the 2013 Transportation Achievement Award from the OECD's International Transport Forum. In autumn 2014 the government invited consortia to submit their qualification to bid for a 45-year concession to operate the two airports, with a short-list to be announced in early 2015 and selection of the winner targeted for June. Given the airports' debt of \$11.7 billion, the government is hoping to raise at least \$20 billion from the transaction. In 2013 the government also began the process of privatizing Sendai Airport in Natori, for which 10 companies submitted qualifications in 2014. Discussion has also begun about privatizing Aomori Airport, Fukuoka Airport and Takamatsu Airport, and the Hokkaido government is considering the sale of New Chitose Airport, the nation's fourth-busiest.

India's election of a new government in 2014 caused a temporary halt in the country's airport privatization process. The initial long-term concessions to upgrade and modernize the New Delhi and Mumbai airports, and to create new ones at Bengaluru and Hyderabad, generally went well. These projects enabled two Indian firms, GMR and GVK, to become global players in airport privatization. In September 2013 the Airports Authority of India (AAI) announced upcoming concessions for six more airports: Ahmedabad, Chennai. Guwahati, Jaipur, Kolkata and Lucknow, but these were all put on hold by the new Modi government. AAI is expected to re-start the process in 2015 based on a new public-private partnership model, according to Airline Business (November 2014).

The Australian federal government, after years of deliberation, announced that the second airport for Sydney will be located at a long-expected site, but the timetable for its development was uncertain. Sydney Airports, the existing airport's long-term concession-holder, has the right of first refusal to develop and operate the second airport.

South Korea discussed privatizing its relatively new Incheon International Airport serving Seoul in 2008–09, but a change of governments at the end of 2012 seems to have put on ice the plan to sell a 49% stake via an IPO. The rationale for the sale was to raise capital to fund an expansion of Incheon. But late in 2013 the \$4.6 billion expansion was announced, with no mention of an IPO.

The government of Vietnam announced that it would privatize the Airports Corporation of Vietnam (ACV), which owns and operates the country's 22 principal airports. A key goal of the privatization is to finance the expansion and modernization of the airports, including development of a major new international airport (Long Thanh International), which it hopes will begin construction in 2016 and open, with a capacity for 25 million annual passengers, in 2022. However, concerns have been expressed in the National Assembly about proceeding with the Long Thanh project.

Myanmar's government signed a 30-year concession agreement with Mitsubishi Corporation, JALUX, Inc., and local firm Yoma Development Group to expand and operate Mandalay International Airport, effective March 2015.

Latin American and Caribbean Developments

There were no further privatizations in Brazil during 2014, as the consortia that had won concessions to expand and modernize the country's five largest airports rushed to meet initial deadlines for upgrades in time for the 2014 World Cup games, which took place in June and July. Considerable work remains to be done to prepare the airports for the Summer Olympics in 2016. Brazil's presidential elections in autumn 2014 caused a temporary halt in infrastructure privatization decisions, in part due to uncertainty about who would lead the national government following the elections. Since the election, the government is reported to be considering concessions for the airports at Manaus, Porto Alegro and Salvador.

In Peru, the government awarded a 40-year, \$538 million concession to design, finance, build and operate a replacement airport for the tourist city of Cuzco, which is, for most tourists, the jumping-off point for visits to the historic Inca ruins of Machu Picchu. The consortium is a joint venture of Argentina's Corporacion America and Andino Investment Holdings. It will be built on a greenfield site 29 km. from Cuzco.

Chile's Ministry of Public Works reached agreement with the Civil Aviation General Directorate on terms for a 20-year concession to expand Santiago International. The new \$700 million project will add a new international terminal and expand the existing terminal for domestic flights, while also expanding parking structures, taxiways and aircraft parking. Bids were due by the end of November, with the winner to be the team that offered the government the largest share of net airport revenue. Selected early in 2015 was the team led by Aeroports de Paris and Vinci.

Paraguay's new government plans a 30-year concession to modernize Asuncion's Silvio Pettirossi Airport.

Jamaica is moving forward with its second large airport privatization project. After the success of its build-operate-transfer concession that resulted in a large new terminal at Sangster International Airport in tourism capital Montego Bay, it is now seeking a similar deal for the capital city's airport. Norman Manley International in Kingston needs both a new terminal and an upgraded main runway. A team of advisors including Arup and Ernst & Young has developed the plan for the concession and the procurement process. The government hopes to award the concession in 2015.

Another major privatization possibility is in Mexico. The government has finally decided to move forward with replacing the outmoded Benito Juarez Airport serving Mexico City. The master plan developed by Arup calls for an initial four runways and one terminal, with a capacity of 30 million passengers, to be completed by 2018 at a cost of \$9.2 billion. Ultimately, the airport would be expanded to six runways and two terminals, to handle 60 million passengers per year, at a cost in the vicinity of \$50 billion. Whether or not a concession will be used is still to be determined, with a state bond-financed project being considered instead. In addition, a plan is under way to make the (already privatized) Tijuana airport into a cross-border airport, by adding a parking facility in San Diego County connected to the airport by a 325-ft. enclosed walkway across the border. U.S. passengers already account for about 60% of Tijuana International Airport's originating passengers. The project is a joint venture of airport owner GAP and Sam Zell's Equity Group Investments. The project received approval from the U.S. Customs & Border Protection in April. The joint venture company will cover the costs of the new CBP inspection facility.

[Note: One of the sources for the above section on global airport privatization was a summary report by the CAPA Centre for Aviation. That report is available online at http://centreforaviation.com/analysis/global-airport-finance-and-privatisation-capareview-2014-the-big-funds-dominate-transactions-202694.]

4. U.S. Airport Privatization

Federal Pilot Program

Congress enacted the federal Airport Privatization Pilot Program in 1996 to test the idea that private capital and management could improve U.S. airports. The legislation created a limited set of exceptions to conditions attached to federal Airport Improvement Program grants, which would otherwise make long-term lease or sale of airports impossible. In the 2012 FAA reauthorization bill, Congress increased the number of slots in the program from five to 10. One slot in the program is still reserved for a general aviation (non-airline) airport, and only one of the remaining slots can be used for an airport meeting FAA's definition of a "large hub."

The first serious attempt to lease a large hub airport took place in 2007 when Chicago reached a deal with the airlines serving Midway Airport, which had applied for the "large hub" slot in the program. With major tenant Southwest Airlines signing on to the deal (which provided certainty regarding airport charges for many years), the other Midway carriers agreed, and the lease was put out to bid. Unfortunately, the winning bidder in 2009 was unable to finance its \$2.5 billion bid during the credit markets collapse, so the airport failed to be privatized.

The situation changed in 2012–13 when Puerto Rico's government worked with the airlines serving Luis Munoz Marin International Airport in San Juan. After some months of discussion, the airport's then-leading carrier, American, agreed to the terms of a draft lease agreement similar to the one airlines had approved for Midway, and other San Juan airlines followed American's lead. After a spirited competition, the Puerto Rico Public-Private Partnerships Authority in July 2012 selected Aerostar Airport Holdings, comprising ASUR and Highstar Capital, as the winning bidder. After the required FAA review and public hearing, the agency approved the 40-year lease agreement on February 25, 2013, and the deal was financed soon thereafter. Aerostar made an up-front payment of \$615 million and agreed to invest \$1.4 billion in the airport over the 40 years of the lease. Aerostar will also share airport revenue with the government, estimated at \$552 million. In July 2014, Aerostar conducted a media tour to showcase its progress in upgrading the airport's two aging terminals. The upgrades include extensive new retail stores and restaurants, new automated baggage scanners and other improvements to be completed by November 2015.

Chicago tried a second time under its new mayor, Rahm Emanuel. After a detailed review of the city's debt, pension liabilities and annual budget deficits, Emanuel decided to revive the Midway lease, encouraged by the success of San Juan. To make the deal more palatable to the City Council and voters, the lease term was reduced from the prior deal's 99 years to 40 years, and the terms were changed from the entire amount up front to a combination of up-front payment and annual revenue-sharing. Although the city got 16 responses to its RFQ and short-listed six teams, it received only two proposals, from Macquarie/Ferrovial and from Industry Funds Management/Manchester Airport Group. But before detailed negotiations could begin, the latter dropped out. Instead of negotiating with Macquarie/Ferrovial, the mayor pulled the plug in September 2013, and shortly thereafter, Chicago relinquished its slot in the pilot program.

With San Juan having used one of the 10 slots in the program, the only one still occupied is for the Airglades Airport in Florida. The business plan is to convert Hendry County's small, under-utilized general aviation airport just south of Lake Okeechobee into a large cargo reliever airport for Miami International, focused initially on perishable cargo from Latin America and aircraft maintenance, repair and overhaul. The plan has won the support of the county commission, and two major agribusiness firms adjacent to the airport are part of the Airglades International Airport LLC group that seeks to buy and develop the airport under the pilot program. The airport is just off US 27, a major north-south highway that runs the length of Florida and provides a direct route to Miami International. The company has been steadily building support among cargo and logistics interests. and has kept the FAA fully informed. It reached a milestone in August 2014 when the FAA approved the company's proposal to manage and operate the airport on behalf of Hendry County, while the final stages of its plan to purchase the airport are being reviewed.

Because the pilot program may not be widely understood, the Congressional Research Service, at the request of Congress, produced a useful report called "Airport Privatization: Issues and Options for Congress," in spring 2014 (CRS-7-5700). It explains the origin and history of the program, including descriptions of the attempts successful and unsuccessful—to make use of it, along with some suggested changes that Congress might consider. The two types of cases where airport privatization might be most helpful are (1) airports that have lost significant service and need a new business model, and (2) airports in fast-growing metro areas that might want to shift the risk of a major expansion from taxpayers to investors. Examples of the former include Detroit Metro (the near-downtown airport of bankrupt Detroit) and Riverside County, California's Ontario Airport (which has lost a large amount of the market under its management by Los Angeles World Airports). Examples of the latter may include fastgrowing metro areas such as Austin.

Airport Public-Private Partnerships Outside the Pilot Program

The proposed third Chicago airport at Peotone, 40 miles south of the Loop, has been promoted for several decades by the local business community, outside consultants and the Illinois Department of Transportation (IDOT). It has evolved into a public-private partnership in which IDOT will own the land and be responsible for the airside (runways, taxiways, control tower) while the private sector would finance, develop and operate the landside (terminal, parking, etc.). In 2013 the Illinois legislature enacted a bill, SB 20, formally authorizing a 75-year design-build-finance-operate-maintain concession for the airport. In June 2014, IDOT purchased 288-acre Bult Field, a general aviation airport adjacent to the land the agency has been acquiring for the airport. And in September 2014 IDOT held an "industry day" to test private sector interest in the project; about 150 people attended.

Another contender for the "third Chicago airport" position is the airport of Gary, Indiana, which several years ago was renamed Gary/Chicago Airport. It has had only sporadic airline service over the years, and in 2013 lost its only carrier, Allegiant. City officials embarked on a public-private partnership in the hope that professional airportdevelopment and management could transform the airport. After a multi-step procurement process, the Gary Airport Authority in October 2013 selected Aviation Facilities Company (AFCO) as its preferred developer and negotiated a 40-year contract under which AFCO will invest \$100 million in the airport. The deal was finalized in February 2014. The company's subsidiary, AvPorts, has a 10-year contract to manage the airport, with six possible five-year renewals.

Propeller Investments, after having its privatization proposal for Briscoe Field in the Atlanta metro area turned down in 2012 by NIMBY opposition, returned to the area in 2013 with a new proposal: to develop passenger service at the relatively new Paulding Northwest Atlanta Airport, also within the metro area. The deal structure, as a PPP between Propeller and the county, does not require a pilot program slot—but does, of course, require airfield and airspace approval from the FAA, as well TSA screening facilities. Both Delta Airlines and Atlanta Mayor Kasim Reed have come out strongly against the plan, vowing to protect Atlanta Hartsfield-Jackson Airport from competition. The FAA in November 2014 found that commercial service at Paulding would not conflict with the airport's obligations under federal grants. But Paulding County cannot move forward until the FAA completes an environmental impact study, which is currently under way.

Propeller Investments is pursuing a similar opportunity at Paine Field in Everett, a suburb north of Seattle. Airport officials want to attract airline service to provide an alternative to the metro area's sole commercial airport, SeaTac. Both Alaska and Allegiant have expressed interest in providing such service. A three-year FAA study released in 2012 found that adding airline service would have no significant adverse impact on the surrounding area, but there is significant NIMBY opposition. If the project goes ahead, Propeller has offered to use its own funds to build and operate a commercial terminal, as well as pay rent to airport owner Snohomish County. Paine Field has a 9,100-foot main runway, consistent with its serving an adjacent Boeing large-airliner assembly plant.

Airport Facility PPPs

A final category of privatization activity is private-sector finance, development and operation of airport terminals. The Port Authority of New York & New Jersey pioneered this concept in the late 1990s for the new Terminal 4 at Kennedy International Airport. Widely viewed as a success, it produced a state-of-the-art terminal building for which its developer/operator was responsible for all revenues (to cover operating costs, debt service, and hopefully a return on investment). The secondary airport in Orlando—Orlando Sanford—also used this model for both its domestic and international terminals.

Now the Port Authority, under new leadership, is making use of this model again, for a replacement for the aging, under-sized central terminal at LaGuardia Airport. In response to its 2013 RFQ, the agency received numerous submissions and short-listed four teams for the \$2.5 billion terminal (as part of a \$3.6 billion La Guardia redevelopment project). It received three proposals in April 2014, and was expected to announce the winner in October. But on October 21st, Gov. Andrew Cuomo disrupted the process by announcing a \$500,000 redesign competition for the New York Airports, with entries due by year-end. That interjected uncertainty into what had been an orderly procurement process. The Port Authority had planned to procure a replacement terminal at Newark Airport using a similar PPP model, but that process appears to be on hold, pending the outcome of the governor's design competition.

Engineering News-Record reported in November that San Antonio International Airport is using a PPP to develop a new general aviation facility, working with a fixed-base operator (FBO) company called SkyPlace.

B. U.S. Airport Security

The private sector is involved in two aspects of airport security: marketing the Transportation Security Administration (TSA) PreCheck trusted traveler program and operating passenger screening under TSA's Screening Partnership Program.

1. PreCheck Program Marketing

At the start of 2014, TSA announced that PreCheck lanes had been installed at 114 U.S. airports and said that it had met its previously announced goal of having 25% of daily airport passengers going through those expedited lanes, rather than the regular screening lanes. That total included PreCheck members selected by airlines from their premium frequent-flyer members, holders of Global Entry or other trusted traveler cards issued by sister agency Customs & Border Protection, members of the military, and some people selected on the spot from the regular screening lines by TSA Behavior Detection Officers and moved into the PreCheck lane(s).

By the end of 2013 TSA also had in place a contract with Morpho Detection to set up and operate PreCheck application points, some at airports and many at other locations where CBP had screening operations (such as seaports). While Morpho's application points focused on recruiting individuals, who are fingerprinted and pay \$85 for a fiveyear membership fee, TSA also held discussions with data/security companies interested in recruiting PreCheck members on a "wholesale" basis, via marketing to companies, trade associations, etc.

The latter effort, called Third Party Pre-Screening, appeared to be stalled for much of 2014, despite the fact that three companies that were pre-qualified in 2013 had developed algorithms for pre-screening large numbers of people, in accordance with standards provided by TSA. Live prototype testing was supposed to have taken place in spring 2014, but a cryptic March 7th announcement from TSA put the program on hold. There was much speculation about internal division within TSA, with Administrator John Pistole in favor of moving forward but others strongly opposed. In July, however, at an Aspen Security Forum, Pistole embraced Third Party Pre-Screening and promised an announcement in the not-too-distant future. That announcement came at an Industry Day in Washington, D.C. on October 7th, at which TSA released a new schedule and set of steps that companies must go through: a new round of proposals, TSA assessment of their pre-screening algorithms, and then TSA end-to-end testing of their infrastructure and enrollment methods.

To the dismay of the companies, the new approach will apparently also require fingerprinting of applicants—despite the fact that the underlying idea of the algorithms was to avoid the in-person appearance of applicants for fingerprinting. The process was intended to be analogous to the kinds of algorithms companies use in credit scoring. One company was quoted in *The Wall Street Journal* as saying that it estimated its potential market at 10 million people without a fingerprinting requirement, but only one million with that requirement. The process for selecting companies would be a Request for Proposals issued in late November, proposals due by late December, and contract awards in early February 2015. But due to privacy objections that were raised early in 2015, the procurement was put on hold.

2. Resumption of Outsourced Screening

A number of airports have opted to join TSA's Screening Partnership Program (SPP), under which a TSA-selected security company provides screening instead of TSA itself. Airports choosing this option appreciate the private sector's greater flexibility in matching screener staffing to daily and seasonal flight activity. During 2014, a severalyear hiatus in TSA approving new entrants to its program for outsourced screening at airports desiring to do this finally ended. In October 2014, TSA screeners departed from Orlando Sanford Airport and were replaced by screeners from a TSA-certified security company. In this case the agency selected Trinity Technology Group for a six-year contract. Orlando Sanford became the 19th airport in the program. Sarasota, Florida's airport was also approved for TSA screening, and when its contract goes into effect, it will be the 20th SPP airport.

In November, the transition took place at Bozeman Yellowstone Airport and three other small airports in Montana. CSS FirstLine is the contractor TSA assigned to these airports. The other three are Bert Mooney Airport in Butte, Glacier Park Airport in Kalispell, and Yellowstone Airport in West Yellowstone. With the implementation of this contract, the total number of airports in Montana with SPP screening is nine.

Orlando International Airport (MCO) officials are still studying a possible shift from TSA screening to contract screening under SPP. A decision on whether to apply for SPP is expected in the first quarter of 2015.

C. Air Traffic Control

1. Global ATC Trends

In 1987 New Zealand became the first country to "corporatize" its air traffic control system. Since then, more than 50 other countries have followed suit. While the models differ from country to country, nearly all have the following features:

- The ATC system is separated from the transportation agency and reorganized under corporate law.
- Funding is derived directly from the users of the airspace under that country's jurisdiction, via fees and charges for terminal-area, en-route and overflight services. The International Civil Aviation Organization (ICAO) provides guidelines for ATC charging systems.
- In most cases, no tax funding is involved, though in some cases governments pay the corporation to provide services in remote areas.
- The revenue stream is bondable, to finance large-scale capital projects, similar to the way U.S airport projects are financed.
- The corporation reports to a board of directors, rather than to a legislative body.
- Safety regulation is provided by a government agency, at arm's length from the ATC corporation.

These ATC corporations can take several different forms. The most common is a government corporation, in which the national government is generally the sole shareholder (and therefore appoints its board members). In Canada, the corporation (Nav Canada) was chartered as a non-profit, non-share corporation governed by a board consisting of aviation stakeholders—a kind of user co-op. And in the U.K., the corporation (NATS) was set up as a public-private partnership in which aviation stakeholders owned 46%, employees 5%, and the government 49%. Subsequently, the airline group sold a large fraction of its shares to a U.K. pension fund.

The global trade association for what are now called air navigation service providers (ANSPs) is the Civil Air Navigation Services Organization (CANSO). It represents ANSPs in international discussions on aviation policy, just as IATA represents international airlines and ACI represents airports. As of late 2014, CANSO had 87 full members (ANSPs) and 81 associate members (aerospace companies). Over 50 of the full members are self-supporting ATC corporations, including those of Australia, New

Zealand, Thailand, India, Canada, the U.K., Germany, Italy, Austria, Switzerland, Portugal, Spain and South Africa. Governmental ANSPs include Cyprus, Luxembourg, Greece, the Maldives and the FAA's Air Traffic Organization, which is part of the FAA

2. U.S. Air Traffic Control

The impact of the federal government sequester in spring 2013—with furloughs of controllers and the near shutdown of 149 smaller control towers—continued to reverberate during 2014. Among the cutbacks made by the FAA to eliminate the furloughs and keep the small towers in operation were to freeze controller hiring and training for a year, to slow down some ongoing modernization programs, and (as directed by Congress) to reduce spending on airport grants in order to keep controllers working without furloughs. Those impacts fostered serious discussion among aviation stakeholders, beginning in 2013 and continuing through 2014, about funding and governance reforms to the ATC system.

Congress requested a report from the Government Accountability Office on the use of ATC corporatization overseas, and two Washington, D.C. organizations—the Business Roundtable and the Eno Center for Transportation—convened working groups to develop and recommend serious reforms. The former group is composed of former federal aviation officials and outside experts, while the latter is composed primarily of key aviation stakeholder organizations. Both are aiming to have specific recommendations ready by the first quarter of 2015, when Congress begins work on the next FAA reauthorization legislation.

At the beginning of 2014, the FAA Management Advisory Council that had served from 2011 through 2013 issued its final report, making three key recommendations:

- Replace the current aviation tax funding system with direct fees and charges, entirely outside the federal budget process;
- Create a governing board for the Air Traffic Organization consisting of aviation stakeholders; and,
- Separate the Air Traffic Organization from the FAA, creating arm's length safety regulation.

In effect, the MAC recommended corporatization of the ATO.

About the Author

Robert Poole is Director of Transportation Policy and the Searle Freedom Trust Transportation Fellow at Reason Foundation, a public policy think tank based in Los Angeles and Washington, D.C.

In aviation security, Poole advised the White House and House Republican leaders on what became the Aviation & Transportation Security Act of 2001, enacted in response to the 9/11 attacks. He has authored a number of Reason policy studies on aviation security and is the author of a paper on risk-based aviation security for the OECD's International Transport Forum.

He was among the first to propose the commercialization of the U.S. air traffic control system, and his work in this field has helped shape proposals for a U.S. ATC corporation. A version of his nonprofit corporation concept was implemented in Canada in 1996. He has advised the Office of the Secretary of Transportation, the White House Office of Policy Development, the National Performance Review, the National Economic Council, and the National Civil Aviation Review Commission on ATC commercialization. He is a member of the Air Traffic Control Association and of the GAO's National Aviation Studies Advisory Panel.

Poole's Reason studies helped launch a national debate on airport privatization in the United States. He advised both the FAA and local officials during the 1989–90 controversy over the proposed privatization of Albany (NY) Airport. His policy research on this issue helped inspire the privatization of Indianapolis airport management under Mayor Steve Goldsmith and Congress's 1996 enactment of the current Airport Privatization Pilot Program.

Poole has testified on airports, aviation security and air traffic control on a number of occasions before House and Senate aviation and homeland security subcommittees, and he has spoken on these subjects before numerous conferences over the past decade. He has also done consulting work on several airport privatization feasibility studies.

Poole also edits monthly Reason Foundation e-newsletters on airport and air traffic control policy issues. He received his B.S. and M.S. in mechanical engineering at MIT and did graduate work in operations research at NYU.