FLY AWAY WITH ME: A LOOK AT VIRGINIA'S AIRPORTS

All of the most exhilarating and depressing aspects of human existence can be found in America's airports.

– An airport director who wishes to remain anonymous

If the number of flights leaving Virginia's seven largest commercial airports on a monthly basis is any indication, then all but one of those airports are experiencing difficult times and four are encountering long-term problems that cannot be ignored.

Graph 1 helps explain why. On July 22, 2015, The Wall Street Journal published data for the 200 busiest commercial airports in the United States that compared the weekly average number of flights leaving these airports in July 2011 and July 2015. One can see that only Ronald Reagan Washington National (DCA) enjoyed an increase in the number of departing flights between July 2011 and July 2015. The other six largest commercial airports in Virginia recorded declines in outbound flights that exceeded the national average decline of 7 percent.

Why is this occurring? There are at least five reasons. First, the Great Recession had a negative influence on air travel, and regions such as Hampton Roads have yet to recover all of the jobs they lost in that recession.

Second, Virginia is highly dependent upon (some might say addicted to) federal spending, especially defense spending. A combination of sequestration and repositioning of assets has diminished defense spending in Virginia.

Third, nearly all of the commercial airlines in the United States have returned to profitability. One tool they have utilized to do so has been a reduction in capacity – that is, reducing the number of their outbound flights. This

has increased their capacity utilization and made them more profitable enterprises.

Fourth, in some cases, decisions outside the control of airport managers have altered the competitive arena. In the case of the Washington, D.C., market, for example, Congress has mandated that more flights depart from Reagan National (DCA), effectively reducing the number departing from Dulles International (IAD). We will have more to say about this below.

Fifth, airports outside of Virginia, including Baltimore-Washington International (BWI), have sucked away passengers, often by means of carriers such as price-competitive Southwest Airlines. BWI now is larger than Dulles when measured either by the number of departing flights or the number of departing passengers. This was not true in 2011.

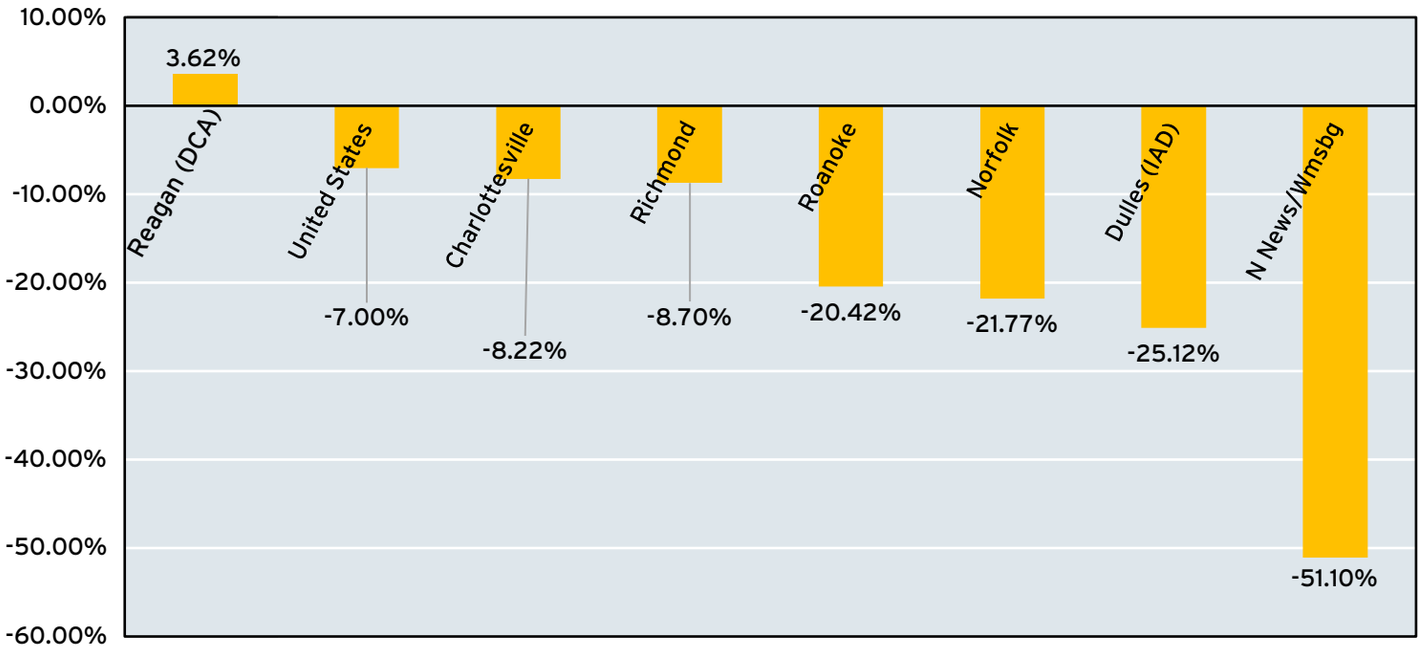
All things considered, the plight of our commercial airports is not a good news story for the Commonwealth because airports act both as a thermometer of economic activity (more flights and passengers reflect expanding economic activity) and as a tool of economic development (good air connections are vitally important to a wide range of firms and organizations). Hence, this is a situation worthy of additional exploration.

Seats vs. Fares: A Sept. 11, 2015, Wall Street Journal article reported these changes in seats and fares at Virginia's four largest commercial airports and nationwide between 2007 and 2014:

	Change in Seats	Change in Fares
Dulles	-28.6%	+10.4%
Norfolk	-27.9%	+ 6.5%
Reagan	+ 1.6%	- 4.8%
Richmond	-12.9%	+ 7.8%
Largest 10 Airports, U.S.	- 1.6%	+ 0.9%
Airports Ranked 11-100 in Size	-14.5%	+ 6.4%

GRAPH 1

PERCENT CHANGES IN THE NUMBER OF WEEKLY FLIGHTS LEAVING VIRGINIA'S SEVEN LARGEST COMMERCIAL AIRPORTS, JULY 2011 VERSUS JULY 2015



Source: Scott McCartney, "The Cities That Have Lost the Most Flights," The Wall Street Journal, 265 (July 22, 2015), www.wsj.com/articles/the-cities-that-have-lost-the-most-flights-1437585049

Classifying Virginia's Airports

Airports in Virginia (see Figure 1) are classified in the Virginia Air Transportation System Plan in one of five ways:

- *Commercial Service* – Defined by the Federal Aviation Administration (FAA) as airports with scheduled air carrier or regional/commuter services and enplaning at least 10,000 passengers per year
- *Reliever* – Located in metropolitan areas and serving to reduce congestion in nearby commercial service airports
- *General Aviation Regional* – Serving large geographic areas with business and recreational services and amenities and are often the only airport facility in the region
- *General Aviation Community* – Serving business and recreational users over a more limited market area than the regional airports
- *Local Service* – Providing limited general aviation services at a low level of activity.

Virginia has numerous facilities that fall under each of these classifications. Figure 1 shows where these airports are located.

Virginia Aviation: Economic Impact

How important are these airports to Virginia's economy? The most recent economic impact study of Commonwealth airports was published in August 2011 by the Virginia Department of Aviation ("Virginia Airport System Economic Impact Study"). The study asserted that the state's airports:

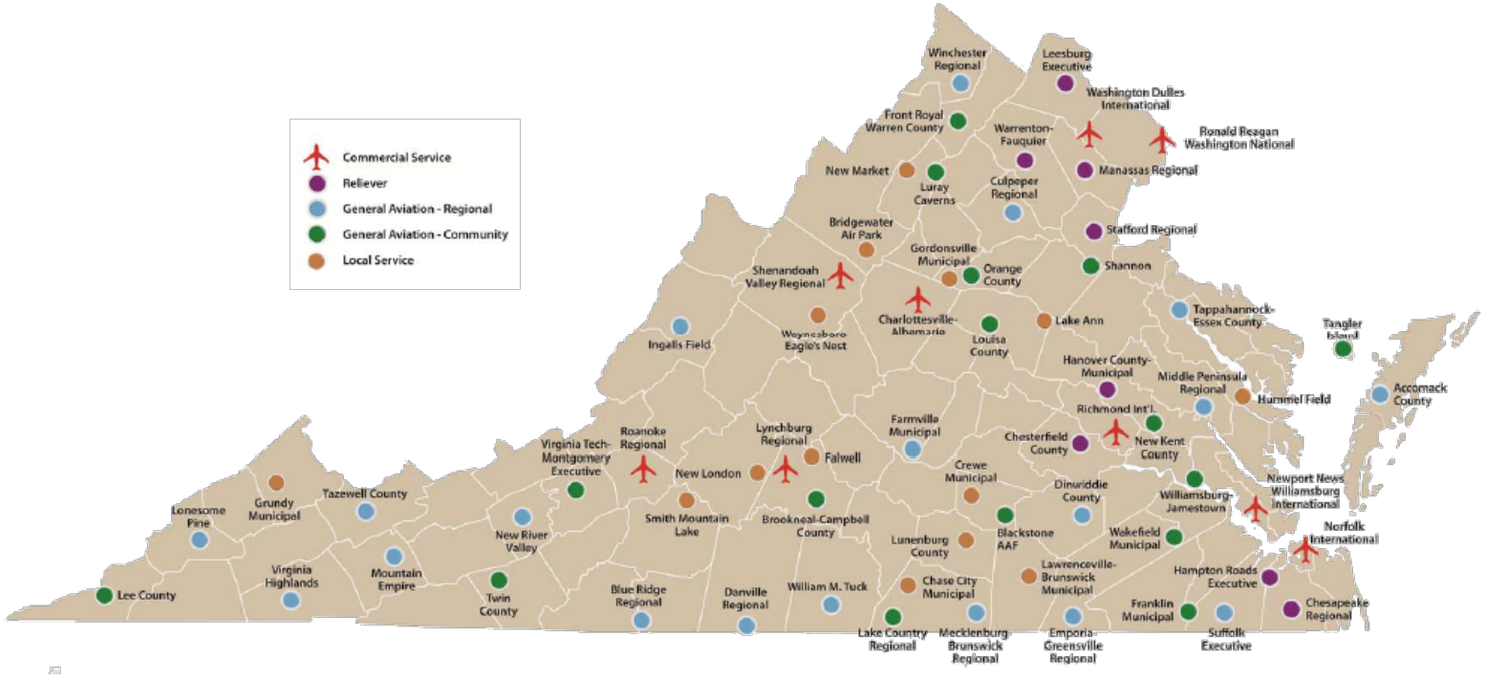
- Contribute $28.8 billion in economic activity to the Virginia economy, or about 4.4 percent of the state's total economic output;
- Create and sustain approximately 259,000 jobs, or about 5.5 percent of total jobs in Virginia;
- Produce $11.1 billion in payroll; and
- Generate an additional $3.48 in economic activity for every $1 spent at Virginia airports.

The study also found that:

- More than 69,000 people each day board commercial aircraft in Virginia;
- Approximately 23,000 visitors arrive in the state each day by commercial airline or general aviation aircraft;
- Over 6,000 aircraft take off from and land at Virginia airports each day; and
- Each job at Virginia's airports supports an additional seven jobs in the state.

FIGURE 1

AIRPORTS IN VIRGINIA



Source: Virginia Department of Aviation

The Changing Airport Environment In Virginia

Anyone who flies knows the word "turbulence." The entire airline industry has encountered the equivalent of a period of adverse weather. In turn, these struggles have affected the airports that handle commercial aircraft – those airplanes carrying passengers and cargo on a for-profit basis.

Table 1, which reports calendar year enplanements (passenger outbound boardings) at Virginia's nine busiest commercial airports, illustrates the nature of this adversity. From 2011 to 2013, four of Virginia's five largest airports lost passenger volume, and in the case of Roanoke, the loss approached 40 percent. Passenger losses at Richmond and Norfolk were minimal during this time period, but Richmond's passenger volume was off 14.4 percent since 2007, while Norfolk was down 13.6 percent during the same time period. Each entry in Table 1 that is colored red represents a year in which enplanements declined. There is plenty of red in Table 1.

The major exception is Reagan National, whose traffic increased every year since 2009 and grew another 4 percent between 2012 and 2013. On a much smaller scale, Charlottesville also enjoyed increases. However, the greatest challenges appeared at the Commonwealth's busiest airport, Dulles International. Since 2005, annual enplanements at Dulles declined by 2,461,509 (18.9 percent). Between 2011 and 2013, for example, 473,390 fewer individuals boarded planes at Dulles – a 4.3 percent decline in its volume. Graph 2 illustrates this trend.

Why have so many of Virginia's airports been struggling at a time when national air traffic has been increasing? **By 2013, total annual enplanements in Virginia had yet to recover to their 2008 level. Meanwhile, U.S. enplanements rose 3.1 percent between March 2014 and March 2015, according to the U.S. Department of Transportation's Bureau of Transportation Statistics.** Is the mediocre performance of Virginia's airports simply a matter of reductions in federally financed travel, especially in defense-oriented regions such as Hampton Roads and Northern Virginia? Is the Great Recession to blame? Has increased reliance on the Internet reduced the need to travel and/or to send packages? Are other factors at work? Providing answers to these questions is the focus of this chapter.

TABLE 1

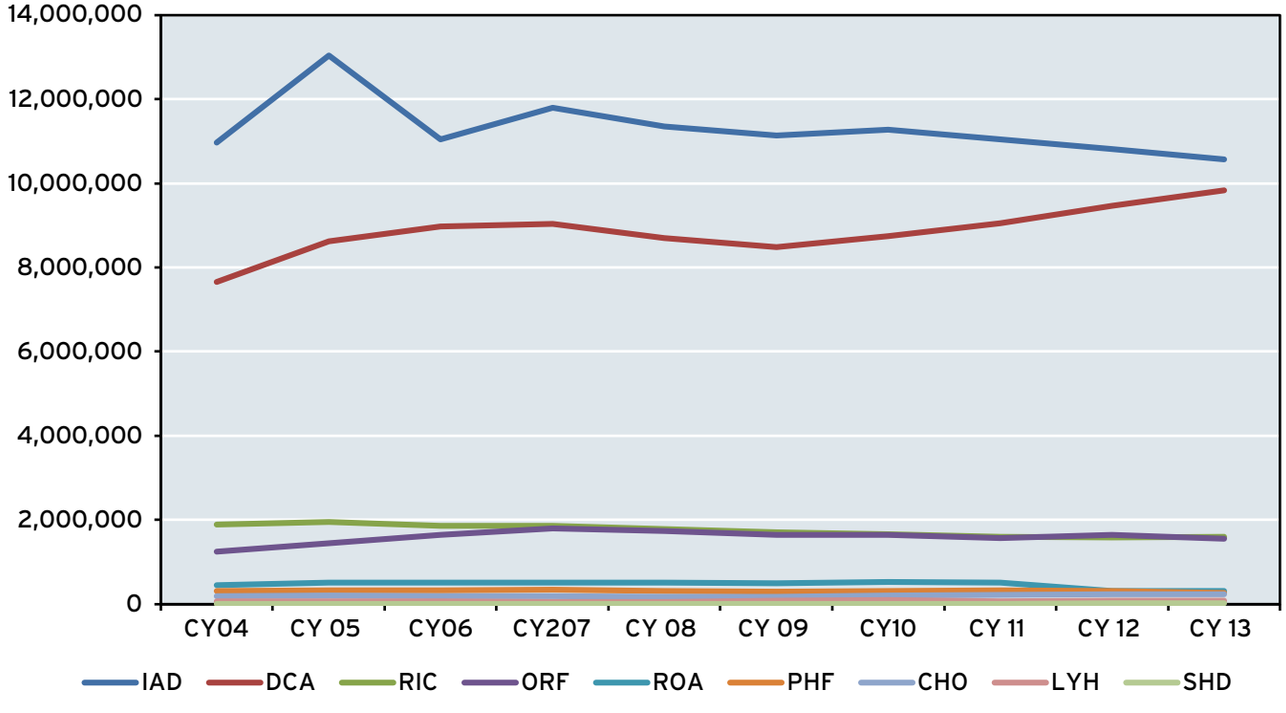
ENPLANEMENTS BY CALENDAR YEAR, VIRGINIA COMMERCIAL AIRPORTS

ID	CITY	AIRPORT NAME	2013	2012	2011	2010	2009	2008	2007	2006	2005	2004
IAD	Dulles	Washington Dulles International	10,570,993	10,816,216	11,044,383	11,276,481	11,132,098	11,348,775	11,789,441	11,045,217	13,032,502	10,961,614
DCA	Arlington	Ronald Reagan Washington National	9,838,034	9,462,231	9,053,004	8,736,804	8,490,288	8,704,466	9,038,174	8,973,410	8,623,907	7,661,532
RIC	Highland Springs	Richmond International	1,597,913	1,582,565	1,606,695	1,663,294	1,701,246	1,786,594	1,867,307	1,862,325	1,953,003	1,895,472
ORF	Norfolk	Norfolk International	1,560,754	1,651,440	1,571,155	1,651,131	1,649,284	1,733,668	1,805,992	1,644,419	1,452,066	1,251,406
ROA	Roanoke	Roanoke Regional	310,295	315,877	516,789	519,906	498,205	504,292	513,381	513,367	514,361	451,113
PHF	Newport News	Newport News/ Williamsburg International	263,964	314,139	320,961	316,478	297,588	315,293	348,634	326,214	326,202	306,896
CHO	Charlottesville-Albemarle	Charlottesville Albemarle	230,699	230,097	216,957	197,776	180,462	169,843	187,078	185,891	198,133	185,531
LYH	Timberlake	Lynchburg Regional	77,795	79,889	73,821	93,772	86,366	55,307	55,785	60,737	65,895	61,441
SHD	Weyers Cave	Shenandoah Valley Regional	19,730	15,179	12,033	10,408	8,364	7,746	4,907	5,375	5,307	7,709
Annual Totals			24,480,177	24,467,633	24,415,798	24,466,050	24,043,901	24,625,984	25,610,699	24,616,955	26,171,376	22,782,714

* Red entries indicate a reduction from the previous year.
Source: http://www.faa.gov/airports/planning_capacity/passenger_allcargo_stats/passenger/

GRAPH 2

ENPLANEMENTS BY VIRGINIA COMMERCIAL AIRPORT LOCATION, 2004-2013



Source: http://www.faa.gov/airports/planning_capacity/passenger_allcargo_stats/passenger/

Some Background

The Massachusetts Institute of Technology (MIT) Global Airline Industry Program gathers and analyzes information on the global airline industry. The program describes the airline industry in this country as follows:

> *The U.S. commercial airline industry is one of the most diverse, dynamic and perplexing in the world. It is fast-evolving, labor intensive, capital intensive, hyper-competitive and highly susceptible to the ebb and flow of business cycles as well as being among the most regulated of deregulated businesses.*

A brief review of the history of the airline industry, as the MIT experts have described it, can aid in an understanding of what is happening today. The past couple of decades have been particularly volatile for the industry in Virginia and in this country, and significant changes have come about as a result.

During much of the early years of the airline industry, the focus was on technological changes. Jet airplanes for commercial use were introduced in the 1950s, followed by the introduction of the wide-body jumbo jets in the 1970s. During this time the industry was heavily regulated. Attention was given more to technological advances and government policy than to profitability and competition.

With deregulation of the industry in 1978, attention shifted to cost efficiency, operating profitability and competition. From 1990 to 1993, the world airline industry posted four consecutive years of losses totaling over $22 billion as a result of the Gulf War and subsequent economic recession. A return to profitability from 1995 to 1999 resulted in net profits of over $25 billion. The industry experienced a financial crisis between 2000 and 2005, when cumulative net losses reached $40 billion. An economic downturn and the terrorist attacks of Sept. 11 contributed to another round of losses, as did industry labor costs, rising fuel prices, a decline in business travel and an increase in the number of low-cost carriers.

The MIT historical account of the industry notes that between 2001 and 2005, four (US Airways, United, Delta and Northwest) of the six largest airline carriers went into Chapter 11 bankruptcy. The restructuring that resulted led to downsizing, operating-cost cuts and improved productivity. American and Continental accomplished many of the same changes just relying upon the threat of bankruptcy. During this period, more than 100,000 jobs were lost in the industry. While a doubling of fuel costs between 2003 and 2005 cut into the airlines' cost-reduction efforts, the general decline in energy prices that has occurred recently has actually benefited airlines. This is largely because the airlines do not appear to have passed on the fuel-cost savings to consumers in the form of lower ticket prices.[1]

The global financial crisis of 2007-08 and the Great Recession in the United States created further economic upheaval in the airline industry. With declining demand and higher fuel prices, airlines responded with a reduction in scheduled flights, many of which have yet to be restored. The recession provided an incentive for airlines to rid themselves of unprofitable flights. **An MIT study ("Trends and Market Forces Shaping Small Community Air Service in the United States"), released in May 2013, found that the nation's 29 largest airports lost 8.8 percent of their scheduled flights from 2007 to 2012. Smaller airports were hit harder and lost 21.3 percent of their flights.** Virginia's airports, both large and small, typically were among those experiencing reductions in flights.

The U.S. government's General Accounting Office (GAO) has demonstrated that air service to small communities has declined since 2007 due, in part, to higher fuel costs and declining population. For some smaller airports, this has been compounded by having larger airports within driving distance**. However, the GAO found that airports of all sizes have lost capacity in terms of the number of available seats. Smaller airport hubs and feeder airports proportionately have lost more service than large airports**.[2] This accurately describes all of Virginia's airports, except for Dulles International and Reagan National.

Not to be overlooked is the impact of increased airline profitability on Virginia's airports. Large airlines such as Delta have returned to profitability. An important contributing factor has been their elimination

1 Jad Mouawad and Nicola Clark, "Slide in Fuel Costs Lifts Profits for Airlines, but Fares Won't Fall," The New York Times, Dec. 10, 2014. http://www.nytimes.com/2014/12/11/business/slide-in-fuel-costs-lifts-profits-for-airlines-but-fares-wont-fall.html.

2 GAO: Status of Air Service to Small Communities and the Federal Programs Involved, 2014. http://www.gao.gov/assets/670/662831.pdf.

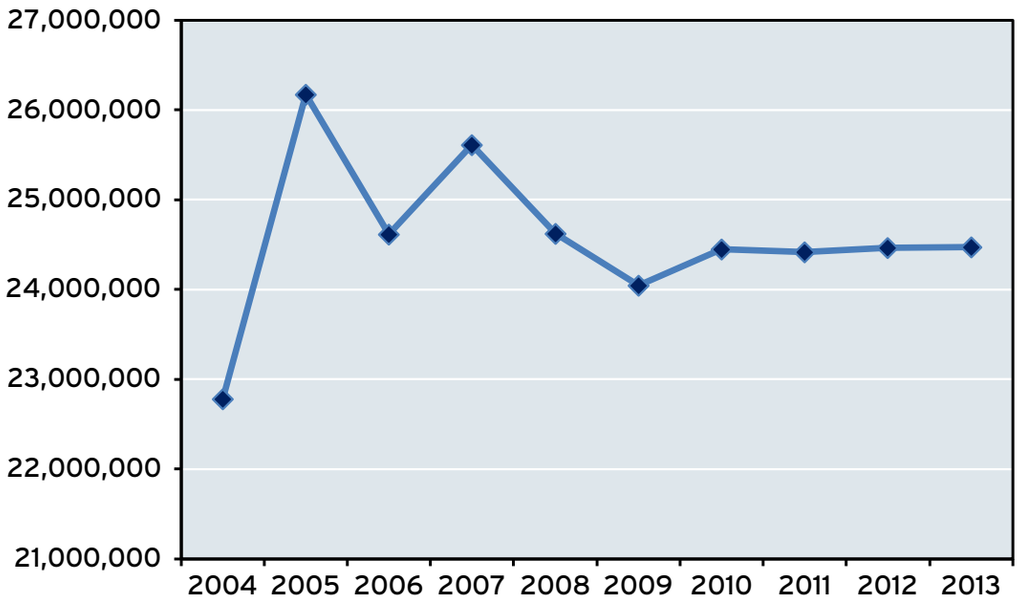
of low-traffic-volume flights as well as diminishing the size of airplanes that serve low-volume routes. **Fewer seats translate eventually to diminished traffic.**

Further, while the real price of air travel per passenger mile has declined over time, recent years have witnessed an upsurge in demand-sensitive pricing designed to extract the maximum revenue from prospective passengers, often based upon the time or manner in which they purchase tickets. On top of this, most airlines now assess fees for sundry matters, including those for baggage, seat location and even an extra six inches of legroom. The net effect at the margin has been an increase in the cost of air travel to many passengers, or an increase in the level of aggravation associated with air travel.

Taken together, these pricing developments cannot have had a positive effect on air travel volumes, though this does not explain why enplanements in Virginia should trail national enplanements by such a wide margin. Graph 3 demonstrates that enplanements at all of Virginia's airports combined have hardly changed at all since 2010.

GRAPH 3

TOTAL ANNUAL ENPLANEMENTS AT VIRGINIA COMMERCIAL AIRPORTS, 2004-2013



Source: http://www.faa.gov/airports/planning_capacity/passenger_allcargo_stats/categories/

The Matter Of Air Cargo

Airplanes can carry cargo as well as passengers, but less so than in former years. Total U.S. air cargo by weight was down 4.4 percent in 2013 compared to 2007 (Bureau of Transportation Statistics, U.S. Department of Transportation).

The first air flight carrying cargo occurred in November 1910 in Ohio between Dayton and Columbus, and involved 200 pounds of silk destined for a store opening. The pillar of air cargo today is the parcels being delivered by firms such as FedEx, DHL, TNT and UPS, but a wide variety of other items, often involving technology, also are carried by air.

Though at least five Virginia airports (Dulles International, Reagan National, Norfolk, Richmond and Roanoke) handle respectable amounts of cargo, Dulles historically has been the Commonwealth's leader in this regard. Nevertheless, its cargo volumes have declined dramatically since the turn of the century. This reflects a national trend, although Dulles' cargo decline has been more pronounced. Graph 4 illustrates this downward trend, which appears to have bottomed out for mail cargo.

A 2013 George Mason University study[3] of air cargo at Dulles International noted that:

> *There are two distinct methods for moving air cargo: air freighter and belly cargo. Air freighters are airplanes that only carry cargo, while belly cargo is carried in the storage area of passenger flights. Air freighter operations fall into two distinct categories: integrators and cargo airlines. Integrators, which include FedEx, UPS, and DHL, provide "door to door service for shippers or importers, usually providing their own road transport ... handling, transit warehousing facilities, often through an airport terminal dedicated to their use, and aircraft. ... All-cargo airlines only provide service between airports, and not the supplementary surface transportation.*

In fact, the volume of air cargo inside the United States has been in general decline over the past decade, at least partially due to increasing use of the Internet and lighter-weight manufacturing techniques, though total global air cargo finally began to increase in 2014. The aforementioned 2013 study of air cargo operations at Dulles conducted by GMU ("An Assessment of Factors Affecting Air Cargo Operations at Washington Dulles International Airport") concluded that the general decline in reliance upon air cargo, transportation problems around that airport, tightened cargo security requirements, the focus of firms such as FedEx on airports such as Memphis, and a decline in the number of international flights were the primary reasons why cargo activity at Dulles has plummeted.

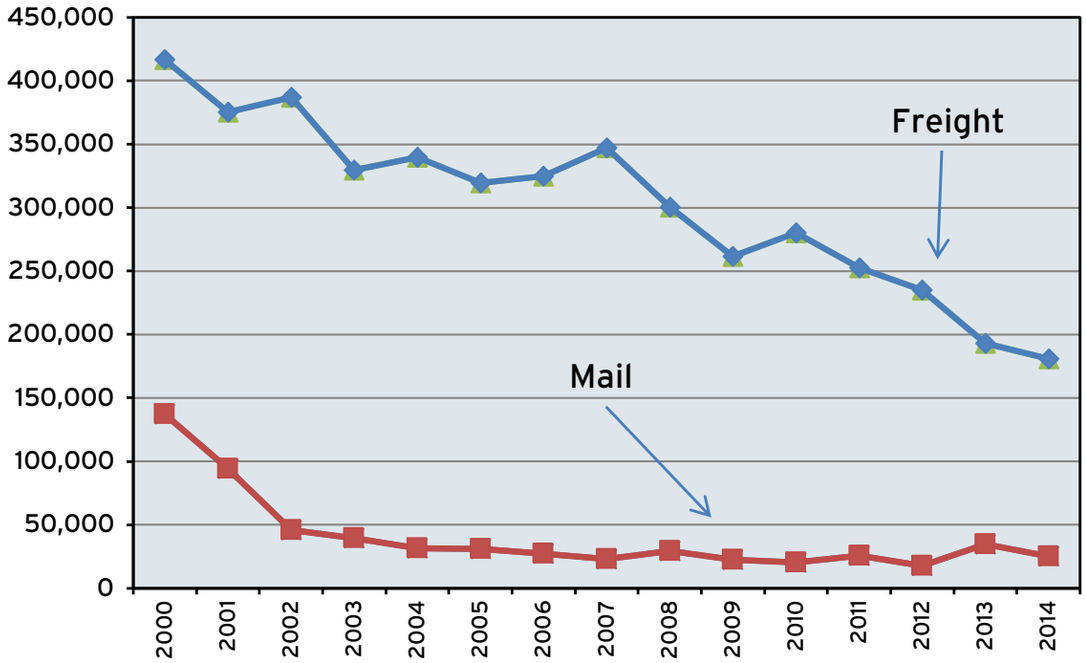
These are among the reasons why the outlook for future air cargo activity in Virginia is mixed at best, and it does not seem likely that Dulles International (which ranked 21st largest nationally in the cargo area in 2012) is likely to be able to restore its former position. Indeed, Reagan National may be more favorably situated than Dulles because it can be reached more quickly by prospective private- and public-sector Washington, D.C., shippers.

An airport "slot" confers the right to an airline either to land or take off an airplane at a specific time and place. No slot equates to no ability to land or take off, and therefore no ability to conduct business. Slots are scarce and often have significant economic value. However, if an airline doesn't use the slots it controls, it can lose them. Continental Airlines is said to have paid $209 million for four pairs of slots at London's Heathrow Airport in 2008 (Kevin Done, Financial Times, March 3, 2008).

3 http://cra.gmu.edu/pdfs/CRA2013-6_DVersel.pdf.

GRAPH 4

FREIGHT AND MAIL CARGO AT DULLES INTERNATIONAL AIRPORT, 2000-2014 (000S OF POUNDS)



Source: www.metwashairports.com/dulles/653.htm

The Special Cases: Dulles International And Reagan Washington National

On June 7, 1987, Dulles International (IAD) and Reagan National (DCA) airports were transferred from Federal Aviation Administration (FAA) direct responsibility to the Metropolitan Washington Airports Authority (MWAA) under a 50-year lease authorized by the Metropolitan Washington Airports Act of 1986, Title VI of Public Law 99-500. All property was transferred to the Airports Authority, though the federal government holds title to the lease. Prior to the transfer, the airports were owned and operated by the FAA.

The arrangement of Reagan National and Dulles International under MWAA is distinctive. Because Reagan National has limited capacity, it is governed by hourly flight limitations, referred to as "slot rules," and is subject to restrictions on the number of flights that can leave it for destinations beyond a 1,250-mile radius – the "perimeter rule." Congress established these regulations to create a complementary system of airports, with Reagan National being primarily responsible for short-haul domestic flights and Dulles International handling longer and international flights. However, as noted below, subsequent changes in these rules by Congress have had visibly adverse impacts on activities at Dulles (see Graph 5).

The MWAA is a big operation and employs more than 1,400 people in a structure that includes central administration, airports management and operations, and police and fire departments. In addition to operating Reagan National and Dulles International, it is responsible for capital improvements at both airports. It is not taxpayer-funded, but is self-supporting, using aircraft landing fees, rents and revenues from concessions to fund its operating expenses. Capital improvements are funded by bonds issued by the MWAA, federal and state Airport Improvement Program funds and passenger facility charges.

Things became more complicated on Nov. 1, 2008, when the Commonwealth transferred the daily operation, maintenance and control of the Dulles Toll Road to MWAA. Tolls are collected on that road and are used for operation, maintenance and improvements in the Dulles corridor, as well as to fund a portion of the Metrorail construction in the corridor. It is not yet clear that MWAA is the ideal administrative overseer for the toll road, but there is no visible movement to change the current arrangement.

The MWAA is currently managing the project to extend Metrorail from the existing Orange Line to Dulles International and Loudoun County. Construction commenced on March 10, 2009. Phase I to Wiehle Avenue in Reston has been completed and Phase II to Dulles International and into Loudoun County is expected to be completed in 2019.

The Dulles Corridor Metrorail Project is funded by the MWAA, with additional contributions from Fairfax and Loudoun counties, the Commonwealth of Virginia and the federal government, as well as from revenue generated by the Dulles Toll Road.

A salient question is whether the extension of the Metrorail to Dulles will increase passenger traffic at the airport. Clearly, that is the hope of Metrorail supporters, but it remains to be seen whether this will materialize. Evidence from other metropolitan areas is mixed in this regard.

Reagan National Airport (DCA) is the 26th-busiest airport in North America in terms of passenger traffic. Major renovations in 1997 at Reagan National resulted in the opening of Terminal B/C, providing more efficient passenger facilities that are convenient to the Metrorail system and parking garages. According to the MWAA's 2014 Comprehensive Annual Financial Report, enplanements for the 12 months of 2014 were a record high of 10.5 million, the fifth consecutive year of growth. Enplanements grew to 10.2 million in 2013 from 9.9 million in 2012. Reagan National's passenger traffic increases have been largely due to increased activity by Southwest, JetBlue and Virgin America airlines. A considerable portion of this activity has been diverted from Dulles International.

According to MWAA, an important reason for passenger traffic growth at Reagan National has been the FAA Reauthorization Act of 2012, which allowed each of four incumbent airlines to convert up to eight flight slots to "beyond-perimeter" flights (an exception to the federal law limiting flights to nonstop distances of 1,250 miles or less). These beyond-perimeter flights

typically involve larger aircraft that carry more passengers, and have had a negative effect on Dulles passenger traffic.

Additionally, a merger between US Airways and American Airlines was consummated in October 2015. A portion of this agreement required that flight slots be transferred by the new merged airline to Southwest, JetBlue and Virgin America. These airlines soon expanded their activities, which have been concentrated at Reagan National.

Plus, several technological improvements have been implemented, including Airport Surface Detection Equipment - Model X, Optimized Profile Descent, Performance Based Navigation (PBN) procedures and basic rerouting. In sum, Reagan National now is a more efficient, passenger-friendly operation than in the past.

Dulles International Airport is slightly busier than Reagan National and is the 24th most active airport in North America in terms of passenger traffic. Graph 5 provides another picture of the overall decline in enplanements at Dulles International compared to Reagan National, while Graph 6 subdivides the Dulles passenger traffic between domestic and international. One can see that international traffic at Dulles actually has been increasing in recent years, but that increase has been overshadowed the significant decay in domestic traffic.

As we already have seen, Congressional actions favoring Reagan National over Dulles International arguably may be the most important reason why Dulles passenger traffic has deteriorated. WAMU-FM reported in April 2015 that over time, Congress has added 52 slots – each slot represents the authorization for one takeoff or landing – at Reagan National and further that it has supplied Reagan with 40 slot exemptions to the perimeter rule. U.S. Sen. Tim Kaine, D-Va., has urged Congress to halt its practice of adding flights to Reagan National. He believes (correctly, we conclude) that this has had a negative impact upon traffic at Dulles.

For many years, the dominant airline at Dulles International has been United Airlines. In 2010, United merged with Continental. Since then, the United/Continental combination has reduced the number of seats it offers on Dulles flights in order to respond to potential antitrust concerns over its market share. As a consequence, United/Continental's Dulles international market share has fallen from 65.5 percent in December 2013 to 61.9 percent currently.

In 2014, Dulles International began to serve several new markets, including Air China to Beijing, and United to Madrid and Nassau. These followed additions in 2013 of Brussels Airline to Brussels, Belgium, and Etihad Airways to Abu Dhabi and the United Arab Emirates. In May 2014, Frontier Airlines started a new low-fare service from Dulles with nonstop flights to 14 destinations. In spite of these flight increases, the growth in international passenger traffic at Dulles generally has been below that of the industry average.

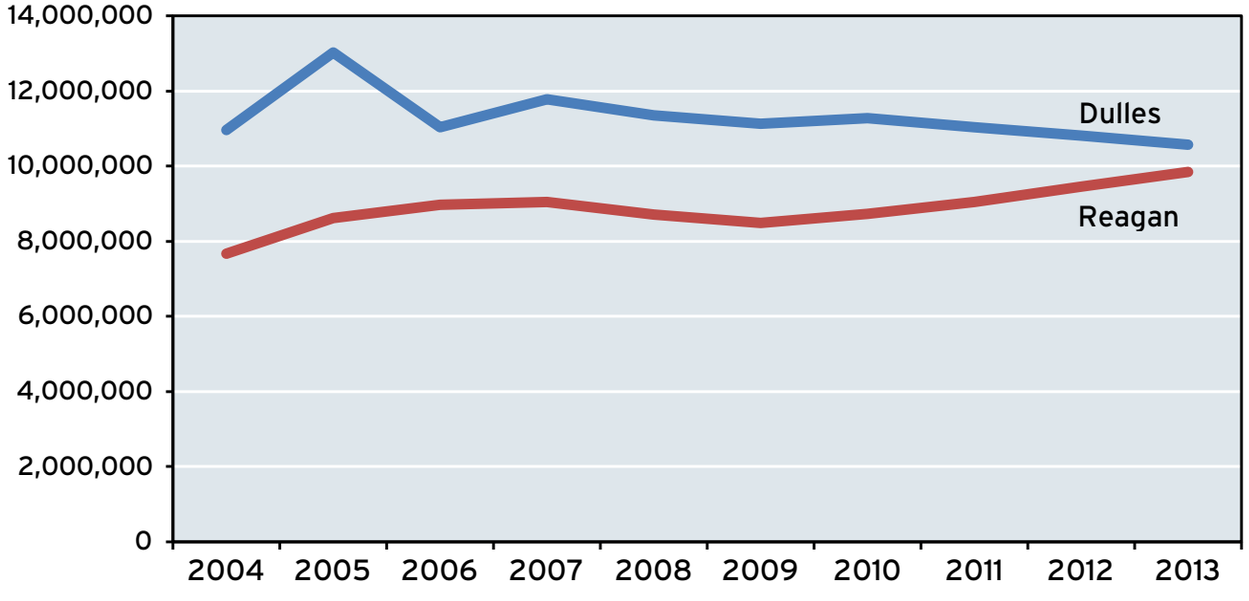
The long-term decline in Dulles International passenger and cargo traffic (only some of which has flowed to Reagan National) must be a major matter of concern for Virginia. The Commonwealth is losing longer-haul and international passenger traffic to other airports, such as Baltimore-Washington International. Indeed, BWI's annual passenger traffic now exceeds that at either Dulles or Reagan National.

Dulles International also is attempting to make itself more efficient and attractive. Dulles Development (D2) is a major capital construction program to improve the facilities and provide additional capacity at the airport. New facilities completed in the D2 program include a new airport traffic control tower, expanded airline gates, a fourth runway and an underground passenger transport system, AeroTrain, which opened in 2010. Other improvements include Dulles Passport Express automated kiosks to speed up international arrivals, Silver Line Express bus service, and technological improvements such as Airport Surface Detection Equipment - Model X, Performance Based Navigation procedures, basic rerouting and Time Based Flow Management, (similar to Regan National's upgrades.)

It remains to be seen whether these improvements will overcome the slot and perimeter awards that have been given by Congress to Reagan National. Blunt reality is that Reagan is a more convenient airport for legislators, staff, lobbyists and other Washington denizens to access and, hence, there is understandable pressure both to increase the number of slots at Reagan and to waive the perimeter flight distance restrictions.

GRAPH 5

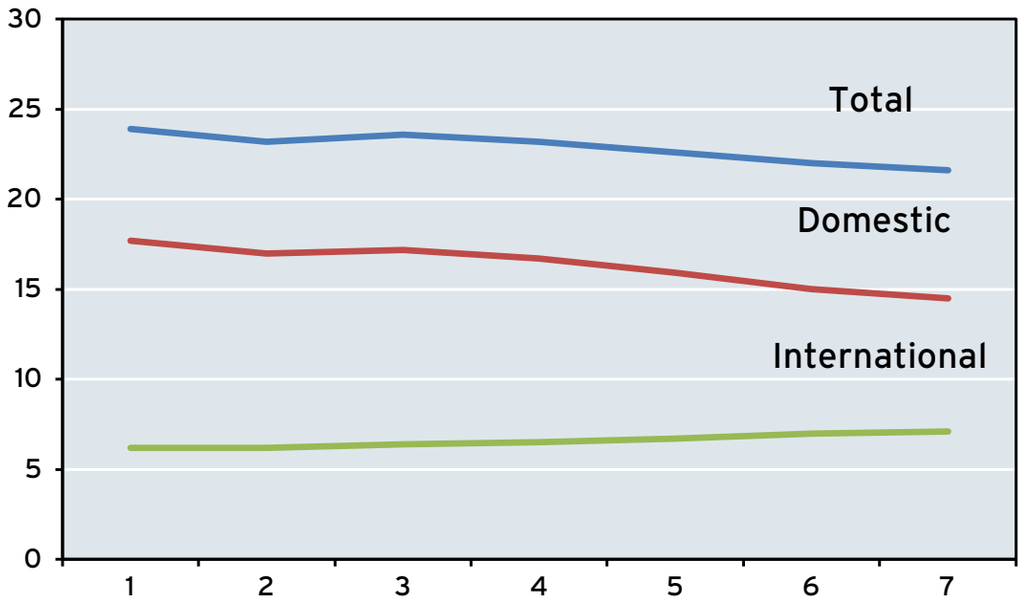
ANNUAL PASSENGER ENPLANEMENTS AT DULLES INTERNATIONAL AND REAGAN NATIONAL AIRPORTS, 2004-2013



Source: Metropolitan Washington Airports Authority Comprehensive Annual Financial Report, 2014

GRAPH 6

ANNUAL DOMESTIC, INTERNATIONAL AND TOTAL ENPLANEMENTS AT DULLES INTERNATIONAL, 2008 TO 2014 (IN MILLIONS)



Source: Metropolitan Washington Airports Authority Comprehensive Annual Financial Report, 2014

Virginia's Other Major Commercial Airports

Virginia has seven other significant commercial airports that serve the regions of the state. Ninety-five percent of Virginians are within 30 minutes of a general aviation airport, or within 45 minutes of commercial service airports. This number is expected to increase slightly in the future because of the increasing importance of smaller airports as feeders to larger airports.

Shenandoah Valley Regional Airport (SHD) in Weyers Cave recorded 19,730 enplanements in 2013 and now has three daily and three weekend flights to Dulles International by means of United Express. SHD understands its role as a feeder to airports such as Dulles and advertises:

> *Did you ever stop to think about how much you are actually spending when you drive to and from a larger airport several hours away? When you use SHD, travel time is minimal leaving more time at home or the office. Plus you won't have to worry about fuel costs, outrageous parking fees, long lines at security or traffic jams. When you think about the savings ... it just makes sense to fly SHD.*

Charlottesville Albemarle Airport (CHO) enjoyed a record high of 230,699 enplanements in 2013. CHO has experienced more than a 20 percent increase in enplanements over the past decade. Service at CHO is comprehensive and includes American Airlines, with daily direct flights to Chicago and New York-LaGuardia; Delta, with daily direct flights to New York-LaGuardia and Atlanta; United, with daily direct flights to Dulles; and US Airways, with daily direct flights to Philadelphia and Charlotte. Gradually, Charlottesville is evolving beyond its role as a feeder airport and increasingly is attracting passengers who are coming to the Charlottesville metropolitan region to do business.

Lynchburg Regional Airport (LYH) reported 77,795 enplanements in 2013, down substantially from a peak of 93,772 in 2010. Traffic appears to have been adversely affected by the Great Recession, the effects of which linger in Lynchburg, where the city's rate of unemployment was 5.9 percent in April 2015 as compared to 4.8 percent in Virginia as a whole. The airport now has six arrivals and six departures daily by regional carrier US Airways Express. Flights connect primarily to Charlotte International Airport. Activity at LYH is constrained by its location near Roanoke, where ROA annually records about four times as many enplanements.

Newport News/Williamsburg International Airport (PHF) hit a high in enplanements in 2007 with 348,634. By 2013, however, that number had fallen to 263,964, a decline of 24.3 percent, after bargain carrier AirTran left the airport and regional defense expenditures stagnated. PHF's location, roughly between busier airports at Norfolk (ORF) and Richmond (RIC), restricts its growth potential. However, PHF may be able to attract another lower-priced carrier similar to AirTran, in which case it retains the potential to siphon traffic away from ORF and RIC.

Norfolk International Airport (ORF) similarly hit a high in passengers served in 2007 when 1,805,992 travelers enplaned there. By 2013, however, enplanements had declined to 1,560,754 – a 13.6 percent reduction. The major airlines serving ORF are American, Delta, Southwest and United/Continental. Nonstop destinations are available daily to 15 different airports. Traffic at ORF (both passenger and freight) is highly sensitive to levels of federal spending within Hampton Roads and, along with the Great Recession, that is the primary reason why passenger traffic at ORF has declined. It is worth noting, however, that ORF, as the closest airport to Newport News/Williamsburg International, has benefited somewhat from the departure of AirTran from PHF.

Richmond International Airport (RIC) hit an enplanement high of 1,953,003 in 2005; however, by 2012, this had fallen to 1,582,565, a decline of 19 percent. RIC passenger activity was hit hard by the Great Recession, which not only affected the activity of the several Fortune 500 firms headquartered in the Richmond metropolitan region, but also put a serious crimp in state government revenue collections. A recent $300 million renovation has been made to the airport. RIC promotes itself in this way: "It's been said we've successfully balanced the sophistication of a large airport with the charm and convenience of a smaller one."

Roanoke-Blacksburg Regional Airport (ROA) offers approximately 50 scheduled airline flights arriving and departing daily with nonstop service to nine major cities. It is served by American, US Airways, United Airlines

and Delta. ROA enplaned a record 519,906 passengers in 2010, but by 2013 this number had fallen a momentous 40.3 percent to 310,295. ROA activity was severely impacted by the Great Recession, and in April 2015 the city's unemployment rate was 5.5 percent, well above the Commonwealth average of 4.8 percent.

A Southeast Virginia Master Airport?

For some time, discussions have occurred periodically that have focused on the possibility of a large super airport that would be located midway between Richmond and Hampton Roads. Such an airport, it is said, would supplant RIC, ORF and PHF and attract direct flights from Southeast Virginia to all major cities in the United States, as well as international flights to Europe and Latin America. The FAA invested $619,000 in a study of this possibility in 1992.

Virtually all agree that such a super airport, a 15,000-acre development south of the James River in Prince George, Surry or Isle of Wight counties, would be a tremendous boon to economic development in the region and could be a difference maker. But, it would be expensive, might come with significant environmental concerns and would require cities supporting the three regional airports (RIC, ORF and PHF) to sacrifice for the greater regional good. This may explain why the proposal has languished.

Military/Government Airports

While not available for consumer or commercial use, there are military aviation assets belonging to all four branches of the military service under the Department of Defense, and the Coast Guard under the Department of Homeland Security. There are 11 such installations in the state supporting more than 26,000 uniformed, civilian and contract employees. All are located in the easternmost region of the state. While the enplanements of each are low in number, Chambers Field at the Norfolk Naval Base reported 36,093 enplanements in calendar year 2013. The military/government airfields are listed in Table 2.

TABLE 2

MILITARY/GOVERNMENT AIRPORTS IN VIRGINIA

LOCATION SERVED		AIRPORT NAME
Fort A.P. Hill / Bowling Green	APH	A.P. Hill Army Airfield
Dahlgren	NDY	NSWC Dahlgren
Fentress	NFE	NALF Fentress
Fort Belvoir	DAA	Davison Army Airfield
Fort Eustis	FAF	Felker Army Airfield
Hampton	LFI	Langley Air Force Base
Norfolk	NGU	NS Norfolk (Chambers Field)
Virginia Beach	NTU	NAS Oceana (Apollo Soucek Field)
Quantico	NYG	MCAF Quantico (Turner Field)
Wallops Island	WAL	Wallops Flight Facility (NASA)
Williamsburg / Camp Peary	W94	Camp Peary Landing Strip

Source: U.S. Department of Defense

Airport Financing

As is often the case, airport operations and improvements inexorably depend upon financial circumstances. Investments in upgrading the infrastructure of Virginia's airports come from federal, state and local funds, but local funds usually constitute less than one-third of such costs.

Projected capital funding for the next six years (FY15-FY 20) from all sources for Virginia airports is as follows:

Federal Funding	$515,404,878 (57.5 percent)
State Funding	$135,324,883 (15.1 percent)
Local Funding	$245,223,734 (27.4 percent)
Total	$895,953,495

It is readily apparent that the federal government is the major source of funding for airport improvements. Table 3 gives some flavor to this general observation by listing all of the airports in Virginia that received FAA grants, the amount of those grants and a brief description of the work to be accomplished, for FY 2014.

At the state level, the Commonwealth Airport Fund (CAF) and the Aviation Special Fund (ASF) provide financial resources for the programs established and administered by the Virginia Aviation Board (VAB) and the Virginia Department of Aviation. The CAF receives its revenue from an annual allocation made by the Commonwealth Transportation Board to the VAB from the Transportation Trust Fund, as required by the Code of Virginia.

The Airport Trust Fund receives 2.4 percent of the Transportation Trust Fund, as required by the Code of Virginia. Table 4 discloses anticipated allocations totaling $146 million to the Airport Trust Fund for the years FY 2015 to FY 2020.

The Code of Virginia specifies that CAF resources must be allocated to airports on the basis of their service role, as identified in the Virginia Transportation System Plan (VATSP). Entitlement and discretionary funds are made available from the CAF and are allocated by the Commonwealth Aviation Board. State entitlement funds can be used for any project eligible under the Airport Capital Program, Facilities and Equipment Program, and Maintenance Program. **Operational costs are not eligible under any state funding program.** The funding received by specific airports, large and small, is reported in Table 5.

TABLE 3

FEDERAL AVIATION ADMINISTRATION AIRPORT IMPROVEMENT GRANTS, VIRGINIA, FY 2014

LOCID	AIRPORT	FEDERAL FUNDS*	ENTITLEMENT	BRIEF DESCRIPTION OF WORK
0V4	Brookneal/Campbell County	$78,994	$78,994	Rehabilitate Runway Lighting [Rehabilitate Lighting System (Design)] - 06/24
FRR	Front Royal-Warren County	$270,000	$270,000	Remove Obstructions [South Side - ROFA/Part 77 (Land Acquisition - Phase I)]
CJR	Culpeper Regional	$25,216	$325,216	Remove Obstructions [Acquire Land (Parcel 45, Gyory 37.3ac Fee; Parcel 48, Roubin 33.1ac Fee)]
PSK	New River Valley	$251,353	$251,353	Construct Taxiway [Design - RW 24]
SHD	Shenandoah Valley Regional	$63,234	$63,234	Wildlife Hazard Assessments [Wildlife Hazard Assessment]
OKV	Winchester Regional	$3,260,700	$850,000	Rehabilitate Apron [Construction]
SHD	Shenandoah Valley Regional	$594,900	$594,900	Update Airport Master Plan Study [ALP Update]
RIC	Richmond International	$17,772,312	$11,725,945	Rehabilitate Taxiway [Realignment (Construction - Multi-year)]
MFV	Accomack County	$819,268	$498,000	Remove Obstructions [Silviculture (On-Airport) - Requested $668K 4/2/14]
ROA	Roanoke Regional/ Woodrum Field	$537,741	$537,741	Acquire Aircraft Rescue & Fire Fighting Vehicle [Acquire ARFF Vehicle]
SFQ	Suffolk Executive	$72,000	$72,000	Remove Obstructions [Design]
PVG	Hampton Roads Executive	$3,577,500	$812,153	Construct Runway [Construction Ph 4 (Const. Parallel Taxiway)] - 10/28
CHO	Charlottesville-Albemarle	$1,024,650	$1,024,650	Rehabilitate Runway [RW Rehab (Design)] - 03/21
FKN	Franklin Municipal-John Beverly Rose	$1,017,000	$600,000	Rehabilitate Runway Lighting [Medium Intensity Edge Light System (Construction)] - 09/27
MKJ	Mountain Empire	$171,630	$171,630	Rehabilitate Runway [Preliminary Design] - 08/26
HWY	Warrenton-Fauquier	$148,500	$148,500	Conduct Environmental Study [5-YR Terminal Development Plan (Short Form)]

TABLE 3

FEDERAL AVIATION ADMINISTRATION AIRPORT IMPROVEMENT GRANTS, VIRGINIA, FY 2014

LOCID	AIRPORT	FEDERAL FUNDS*	ENTITLEMENT	BRIEF DESCRIPTION OF WORK
XSA	Tappahannock-Essex County	$750,000	$750,000	Construct Building [Construct Hangars (Construction)-Multiyear]
SFQ	Suffolk Executive	$144,000	$144,000	Construct Taxiway [Design]
ORF	Norfolk International	$12,648,600	$12,648,600	Modify Terminal Building [expand TSA checkpoint concourse "A"], Rehabilitate Taxiway Lighting [Rehabilitate Taxiway Lighting (various locations)], Rehabilitate Terminal Building [upgrade public restrooms]
OMH	Orange County	$ 177,300	$177,300	Remove Obstructions [(Acquire Land, Parcel 45-4 Fee; Parcel 31-41H Easement)]
HEF	Manassas Regional/ Harry P. Davis Field	$1,541,804	$1,541,804	Extend Taxiway [650'x50' (Construction)]
JYO	Leesburg Executive	$540,000	$540,000	Install Perimeter Fencing [(Construction)]
OKV	Winchester Regional	$171,000	$171,000	Conduct Environmental Study [(EA)]
PTB	Dinwiddie County	$85,500	$85,500	Rehabilitate Apron [Design]
MKJ	Mountain Empire	$72,261	$72,261	Remove Obstructions [Land Acquisition (Part 77 / Threshold Siting) - Phase II]
JFZ	Tazewell County	$ 675,000	$675,000	Improve Airport Drainage [Construction]
OMH	Orange County	$189,000	$189,000	Conduct Environmental Study [(EA)]
HSP	Ingalls Field	$300,000	$300,000	Rehabilitate Runway [Crack Seal and Marking] - 07/25
PHF	Newport News/ Williamsburg International	$9,408,309	$7,108,309	Improve Terminal Building [Construction]
BCB	Virginia Tech/ Montgomery Executive	$747,000	$747,000	Extend Runway [Design (RW, Road Relocation, Hangar Demo)] - 12/30
FVX	Farmville Regional	$214,500	$214,500	Extend Runway [Phase 2 - Acquire Land] - 03/21
LKU	Louisa County/Freeman Field	$117,000	$ 117,000	Rehabilitate Runway Lighting [(Design)] - 09/27

TABLE 3

FEDERAL AVIATION ADMINISTRATION AIRPORT IMPROVEMENT GRANTS, VIRGINIA, FY 2014

LOCID	AIRPORT	FEDERAL FUNDS*	ENTITLEMENT	BRIEF DESCRIPTION OF WORK
ROA	Roanoke Regional/ Woodrum Field	$592,847	$592,847	Improve Runway Safety Area [Modified EMAS (Preliminary Design)] - 06/24
LUA	Luray Caverns	$360,810	$360,810	Remove Obstructions [SR 652/647 Relocations (Design)]
FYJ	Middle Peninsula Regional	$189,000	$189,000	Update Airport Master Plan Study

* Includes all funds awarded, including projected future amounts for multiyear grants
Source: Federal Aviation Administration Airport Improvement Program Grant History, FY 2014
Virginia Airport Operators Council: "Virginia Airports 2014 Annual Review, Selected Projects"

TABLE 4

TRANSPORATION-RELATED FUNDING, FY2015 TO FY2020

PRELIMINARY ALLOCATIONS

	FY2015	FY2016	FY2017	FY2018	FY2019	FY2020	TOTAL
Debt Service	$338.70	$369.10	$424.20	$481.40	$540.20	$404.10	$2,557.70
Other Agencies/ Transfers	60.5	60.6	43.3	43.7	44.8	45.8	298.7
Maintenance & Operations	1,992.80	1,984.20	2,028.10	2,062.70	2,099.70	2,139.50	12,237.00
Tolls Admin. & Other Programs	431.2	441.4	453	464	474.1	484.4	2,748.10
Rail & Public Transportation	495.3	511.7	525.4	547.5	489.8	478.3	3,048.00
Port Trust Fund	38.5	41.1	42.3	43.5	44.7	45.8	255.90
Airport Trust Fund	**21.9**	**23.4**	**24.1**	**24.8**	**25.5**	**26.2**	**146.00**
NoVA Transportation Fund	299.3	310.4	321	332.3	344.1	356.4	1,963.40
Hampton Roads Fund	155.9	183.7	191.1	199.1	207.7	216.2	1,153.80
Construction	1,145.90	1,641.90	1,497.80	1,379.50	1,361.40	1,300.60	8,327.20
Total	$4,980.00	$5,567.50	$5,550.30	$5,578.50	$5,632.00	$5,497.30	$32,735.80

Numbers are in millions of dollars
Source: Virginia Department of Transportation: Fiscal Years 2015-2020 Outlook, Preliminary Six-Year Financial Plan (January 2014)

TABLE 5

COMMONWEALTH FUNDING OF SPECIFIC AIRPORTS, FY 2014

AIRPORT	TOTAL	ENTITLEMENT	DISCRETIONARY	F&E	MAINTENANCE	SECURITY	PROMOTION	AIR SERVICE
Accomack County Airport	$143,502		$69,569	$62,742	$11,191			
Allen C. Perkinson Municipal Airport	$1,656					$1,656		
Blue Ridge Regional Airport	$77,160		$60,657	$600	$15,903			
Bridgewater Air Park	$19,686		$16,000	$3,686				
Brookneal-Campbell County Airport	$4,952			$3,784		$1,167		
Charlottesville-Albemarle Airport	$1,638,598	$1,516,767			$79,331		$22,500	$20,000
Chase City Municipal	$0							
Chesapeake Regional Airport	$28,405		$7,200	$5,030	$16,175			
Crewe Municipal Airport	$9,021				$9,021			
Culpeper Regional Airport	$1,802,345		$1,725,000		$67,345		$10,000	
Danville Regional Airport	$139,253		$80,178		$59,075			

TABLE 5

COMMONWEALTH FUNDING OF SPECIFIC AIRPORTS, FY 2014

AIRPORT	TOTAL	ENTITLEMENT	DISCRETIONARY	F&E	MAINTENANCE	SECURITY	PROMOTION	AIR SERVICE
Dinwiddie County Airport	$73,118			$60,880	$12,238			
Eagles Nest	$1,680				$1,680			
Emporia-Greensville Regional Airport	$261,893		$249,600		$12,293			
Falwell Airport	$4,899		$1,011		$3,888			
Farmville Regional Airport	$33,750				$33,750			
Franklin Municipal Airport	$3,962				$3,962			
Front Royal-Warren County Airport	$13,956				$3,956		$10,000	
Gordonsville Municipal Airport	$0							
Grundy Municipal Airport	$3,200				$3,200			
Hampton Roads Executive Airport	$939,2165		$615,933	$265,000.00	$51,135	$2,148	$5,000	
Hanover County Municipal Airport	$72,958		$9,402		$12,587	$50,968		
Hummel Field	$17,177				$11,177		$6,000	

TABLE 5

COMMONWEALTH FUNDING OF SPECIFIC AIRPORTS, FY 2014

AIRPORT	TOTAL	ENTITLEMENT	DISCRETIONARY	F&E	MAINTENANCE	SECURITY	PROMOTION	AIR SERVICE
Ingalls Field	$121,796		$10,000	$53,192	$38,603		$20,000	
Lake Anna Airport	$18,117		$5,600		$12,517			
Lake Country Regional Airport	$204,635		$184,235		$20,400			
Lawrenceville-Brunswick Municipal Airport	$0							
Lee County Airport	$2,600				$2,600			
Leesburg Executive Airport	$340,771		$220,157	$4,116	$106,498		$10,000	
Lonesome Pine Airport	$25,403		$1,599		$23,804			
Louisa County Airport	$58,234		$13,200		$13,434	$21,600	$10,000	
Lunenburg County Airport	$3,352				$3,352			
Luray Caverns Airport	$3,049				$3,049			
Lynchburg Regional Airport	$560,225	$535,225					$25,000	
Manassas Regional Airport	$238,272		$178,876		$49,396		$10,000	

TABLE 5

COMMONWEALTH FUNDING OF SPECIFIC AIRPORTS, FY 2014

AIRPORT	TOTAL	ENTITLEMENT	DISCRETIONARY	F&E	MAINTENANCE	SECURITY	PROMOTION	AIR SERVICE
Mecklenburg-Brunswick Regional Airport	$130,870			$116,736	$14,134			
Middle Peninsula Regional Airport	$869,292		$643,354	$150,000	$30,091	$45,000	$846	
Mountain Empire Airport	$115,810		$98,734		$16,221	$855		
New Kent County Airport	$18,246		$2,668		$14,449	$1,128		
New London Airport	$0							
New Market Airport	$7,560		$7,560					
New River Valley Airport	$94,030		$15,200	$52,377	$26,452			
Newport News - Williamsburg International Airport	$2,100,773	$2,000,000			$50,773		$15,000	$35,000
Norfolk International Airport	$2,045,000	$2,000,000					$25,000	$20,000
Orange County Airport	$406,571		$309,968		$6,748	$89,854		

TABLE 5

COMMONWEALTH FUNDING OF SPECIFIC AIRPORTS, FY 2014

AIRPORT	TOTAL	ENTITLEMENT	DISCRETIONARY	F&E	MAINTENANCE	SECURITY	PROMOTION	AIR SERVICE
Richmond Executive - Chesterfield County Airport	$16,509				$6,509		$10,000	
Richmond International Airport	$5,193,829	$2,000,000	$3,139,566		$23,144		$11,118	$20,000
Roanoke-Blacksburg Regional Airport	$2,065,000	$2,000,000					$25,000	$40,000
Shannon Airport	$21,008			$5,129	$15,879			
Shenandoah Valley Regional Airport	$238,869	$101,693	$6,458	$2,801	$72,915		$35,000	$20,000
Smith Mountain Lake Airport	$7,979				$7,979			
Stafford Regional Airport	$117,215		$73,685	$2,802	$3,087	$27,640	$10,000	
Suffolk Executive Airport	$178,435		$53,920	$51,198	$51,580	$14,237	$7,500	
Tangier Island Airport	$0							
Tappahannock-Essex County Airport	$82,795		$45,000		$13,452	$24,343		

TABLE 5

COMMONWEALTH FUNDING OF SPECIFIC AIRPORTS, FY 2014

AIRPORT	TOTAL	ENTITLEMENT	DISCRETIONARY	F&E	MAINTENANCE	SECURITY	PROMOTION	AIR SERVICE
Tazewell County Airport	$71,193		$46,600		$14,593		$10,000	
Twin County Airport	$197,053		$95,684	$78,424	$7,540	$15,403		
Virginia Highlands Airport	$232,791		$29,468		$9,765	$183,557	$10,000	
Virginia Tech-Montgomery Executive Airport	$18,694		$3,288		$15,406			
Wakefield Municipal Airport	$7,136		$7,136					
Warrenton-Fauquier Airport	$41,785		$30,080		$11,083		$622	
William M. Tuck Airport	$439				$439			
Williamsburg-Jamestown Airport	$37,723		$24,589		$13,134			
Winchester Regional Airport	$443,869		$384,949	$28,927	$22,492		$7,500	
Total	$21,627,341	$10,153,686	$8,466,126	$947,430	$1,129,449	$479,561	$296,087	$155,000

* DOAV disbursed $2,000,000 to the Metropolitan Washington Airports Authority for Dulles International Airport.
Source: Virginia Department of Aviation

Summing It Up

Virginia boasts a well-developed infrastructure insofar as traditional airline service is concerned. The system of large, medium-sized and small airports throughout the Commonwealth provides easy access to passengers and cargo for commercial service and general aviation, and to government and military users. A wise, foresighted decision in 1986 to create a Virginia Aviation Fund as part of its transportation program has served the state well. Virginia airports have made good use of available federal, state and local funds to upgrade and modernize their facilities with the latest technology for safety and convenience.

Nevertheless, both the number of departing flights and the number of departing passengers has been declining at six of the Commonwealth's seven largest commercial airports in recent years. This reflects slowing economic growth rates, which in turn are sensitive to stagnant levels of federal spending, particularly defense spending in the case of Virginia. While it is true that airport traffic reflects general economic conditions and population growth, it also is true that the quality of air connections is an important consideration when firms decide where to locate or expand. Hence, our declining air passenger traffic not only reflects lackadaisical economic growth, but also handicaps us in economic development competition.

It would be helpful if Congress would heal its desultory strategy concerning airport regulation. While the industry as a whole has been deregulated substantially since 1978, this has not been true in the Washington, D.C., metropolitan region, and this has had a significant negative impact on Dulles International. **Dulles International and Reagan National airports continue to labor under slot and perimeter rules that threaten the financial health of Dulles. The Washington Post concluded that Dulles "is in trouble" (Lori Aritani, Nov. 27, 2014). Dulles is too important to the Commonwealth and Northern Virginia to allow it to be misused. This is the No. 1 airport problem/challenge for Virginia for the remainder of this decade.**

As MWAA observed in its 2013 Annual Review: "Several times over the past decade Congress has reduced the slot and perimeter rules, which when combined with airline consolidation and market forces, has shifted about 2 million domestic passengers from Dulles International to Reagan National. The result is that today we serve nearly the same number of passengers on the 12,000 acre Dulles International complex as on the 800 acres constituting Reagan National."

It will suffice to say that it will be difficult for Dulles International to prosper under current legislative mandates and restrictions.