2012 Governor’s Transportation Conference
Dulles International Airport: Economic Engine for Virginia
December 6, 2012
Ronald Reagan Washington National and Washington Dulles International Airports are major contributors of economic benefits, and together they created $17.5 billion in economic activity in Virginia.

<table>
<thead>
<tr>
<th>Airport</th>
<th>Jobs</th>
<th>Annual Payroll (thousands)</th>
<th>Economic Activity (thousands)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dulles International</td>
<td>96,980</td>
<td>$3,991,000</td>
<td>$10,123,254</td>
</tr>
<tr>
<td>Reagan National</td>
<td>82,675</td>
<td>$3,371,400</td>
<td>$7,324,919</td>
</tr>
<tr>
<td>IAD/DCA</td>
<td>179,655</td>
<td>$7,362,400</td>
<td>$17,448,173</td>
</tr>
</tbody>
</table>

Source: Virginia Air Transportation System 2010 Economic Impact Study
Dulles is Positioned for Growth and Ready for the next 50 years…

Dulles Now

Dulles Future
Reagan National and Dulles International Operate as an Airport System

- The long-term future is bright for our Airport System
- DCA – Convenience/Superior Performance/Land Constrained
- IAD – International Gateway to the Nation’s Capital/Unconstrained Aviation-Aviation Support Growth Potential/Vast Opportunities For Commercial Real Estate Development
Dulles International (IAD)

- IAD Uniquely Positioned for Growth
  - Terminal Capacity
  - Robust Runway Capacity
  - Parking Capacity
  - Undeveloped Airfield-Accessible Land

- Surrounding High Income Customer Base On a Positive Growth Trajectory = More Travel

- Newly Expanded Facilities and Improvements = Improved Customer Service

- Upcoming Game Changer – METRO at Dulles in 2018
Air Service Development Objective

Raise Awareness of the Strengths of our Market/Airports to Drive Demand for Increased Air Service for the Washington Region’s Passengers & Shippers

Air Service Development Objectives for Dulles

Retain and Support Current Domestic & International Air Service
   All Top 50 Domestic Markets Served   -   44 International Markets Served

Identify, Pursue & Obtain New Air Service to Destinations Highly Travelled to and from the Washington Region
   In 2012:  3 New Foreign Flag Airlines & 7 New or Competitive Service Destinations

Establish Dulles International as a Major U.S. Air Cargo Gateway
   Freighter service to Europe on track for Q3 2013
   Niche markets under development: Flowers and other perishable air cargo
Dulles International as a Major Hub Airport
Serves More Total Passengers Than Reagan National or BWI

Dulles’ Unique Strength is 7.5M International Passengers Compared to DCA’s 1.5M or BWI’s 1.2M

Sources: Airport websites; MIDT (adjusted); YE Jun’12 U.S. DOT Domestic O&D Survey
Air Service Advantage of Dulles International

The U.S.’ Strongest Local Major Market
in the Heart of the Washington Regions’ Economy

<table>
<thead>
<tr>
<th>METRO REGION</th>
<th>TOTAL RANK¹</th>
<th>2010 POPULATION (000S)</th>
<th>2000-2010 POPULATION GROWTH</th>
<th>2010 MEDIAN HOUSEHOLD INCOME (000S)</th>
<th>SEPT. 2012 UNEMPLOYMENT RATE (%)</th>
<th>FIVE-YEAR² JOB GROWTH (000S)</th>
<th>2011 GROSS REGIONAL PRODUCT PER CAPITA (000S)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Washington</td>
<td>1</td>
<td>4</td>
<td>5</td>
<td>1</td>
<td>1</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Houston</td>
<td>2</td>
<td>9</td>
<td>1</td>
<td>10</td>
<td>4</td>
<td>1</td>
<td>4</td>
</tr>
<tr>
<td>Boston</td>
<td>3</td>
<td>5</td>
<td>11</td>
<td>3</td>
<td>2</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Dallas</td>
<td>3</td>
<td>7</td>
<td>3</td>
<td>9</td>
<td>3</td>
<td>4</td>
<td>6</td>
</tr>
<tr>
<td>San Francisco</td>
<td>4</td>
<td>6</td>
<td>8</td>
<td>2</td>
<td>6</td>
<td>8</td>
<td>1</td>
</tr>
<tr>
<td>New York</td>
<td>5</td>
<td>1</td>
<td>12</td>
<td>4</td>
<td>11</td>
<td>6</td>
<td>3</td>
</tr>
<tr>
<td>Denver</td>
<td>6</td>
<td>13</td>
<td>4</td>
<td>5</td>
<td>5</td>
<td>5</td>
<td>7</td>
</tr>
<tr>
<td>Philadelphia</td>
<td>7</td>
<td>8</td>
<td>9</td>
<td>6</td>
<td>9</td>
<td>7</td>
<td>9</td>
</tr>
<tr>
<td>Chicago</td>
<td>8</td>
<td>3</td>
<td>10</td>
<td>7</td>
<td>7</td>
<td>12</td>
<td>8</td>
</tr>
<tr>
<td>Atlanta</td>
<td>9</td>
<td>10</td>
<td>2</td>
<td>11</td>
<td>8</td>
<td>11</td>
<td>11</td>
</tr>
<tr>
<td>Los Angeles</td>
<td>10</td>
<td>2</td>
<td>7</td>
<td>8</td>
<td>12</td>
<td>13</td>
<td>10</td>
</tr>
<tr>
<td>Miami</td>
<td>11</td>
<td>11</td>
<td>6</td>
<td>13</td>
<td>10</td>
<td>11</td>
<td>12</td>
</tr>
<tr>
<td>Detroit</td>
<td>12</td>
<td>12</td>
<td>13</td>
<td>12</td>
<td>13</td>
<td>0</td>
<td>13</td>
</tr>
</tbody>
</table>

Notes:
1. Composite score is based on sum of individual category ranks
2. Job growth is non-annualized and compares June 2012 to June 2007
Sources: U.S. Census Bureau, 2010 American Community Survey; U.S. Bureau of Labor Statistics; Woods & Poole Economics, CEDDS 2012
International Passenger Growth at Washington Dulles Has Outperformed Its Peers

Dulles International Passenger Traffic Has Grown 72% over the Past 10 Years

Comparison of 10-Year Growth in International Passengers
(YE May 2012 vs. YE May 2002)

<table>
<thead>
<tr>
<th>Airport</th>
<th>2002-2012 Passenger Growth</th>
<th>Growth by Number (million)</th>
</tr>
</thead>
<tbody>
<tr>
<td>IAD</td>
<td>71.9%</td>
<td>2.64</td>
</tr>
<tr>
<td>JFK</td>
<td>67.3%</td>
<td>9.57</td>
</tr>
<tr>
<td>ATL</td>
<td>63.3%</td>
<td>3.65</td>
</tr>
<tr>
<td>PHL</td>
<td>50.4%</td>
<td>1.27</td>
</tr>
<tr>
<td>DFW</td>
<td>45.5%</td>
<td>1.69</td>
</tr>
<tr>
<td>BOS</td>
<td>21.8%</td>
<td>0.71</td>
</tr>
<tr>
<td>ORD</td>
<td>21.4%</td>
<td>1.80</td>
</tr>
<tr>
<td>BWI</td>
<td>15.5%</td>
<td>0.06</td>
</tr>
</tbody>
</table>

Source: U.S. DOT International T100 Report
International Air Service at Dulles International

New markets: Dublin, Ireland; Manchester, England; and Toronto City, Canada

Additional service by new carriers: Dubai, UAE; Mexico City, Mexico and San Salvador, El Salvador

Note: Etihad has announced to launch daily nonstop service to Abu Dhabi on March 31, 2013, subject to regulatory approvals.

Source: OAG, October 2012
New Airline
Porter Airlines – Dulles/Toronto City – April 16

- 4 Daily Roundtrips
- Bombardier 70-Seat Q400 Aircraft
New Airline
Aeromexico – Dulles/Mexico City – May 21

✈ Daily Roundtrip
New UNITED Air Service at Dulles International

- Daily Service to Doha, Qatar via nonstop Dubai, U.A.E. – May 2012
- Daily Service to Dublin, Ireland – June 2012
- Daily Fayetteville, NC – Nov 2012
New Airline
Emirates – Dulles/Dubai, UAE – September 12

✈ Daily Roundtrip
New Airline *On The Way*
Etihad – Dulles/Abu Dhabi, UAE – March 31, 2013

✈ Daily Roundtrip
Domestic Air Service at Dulles International

Despite reductions on some routes, United added service to Ft. Lauderdale, FL, Greenbrier, WV, and Honolulu, HI

Domestic U.S.
83 Destinations
7 Carriers
305 Daily Departures

Source: OAG, October 2012
Dulles International’s Cargo Advantages

- World-class facilities
- Cost advantages compared to other East Coast cargo hubs
- Catchment area which covers entire east coast within one-day drive, combined with extensive nonstop international network
- Cooperative work environment with State and local governments and Economic Development Agencies
- Promotional Cooperative Program for airlines
- Freighter Incentive Program (FIP)
Why Cargo Development?

- Supports New International Markets
- Builds Demand for Cargo Space
- Supports Regional Economy
- Increases IAD Market Share of Air Cargo
- Supports Niche Market Development
Air Cargo Service Priorities

- Increase Cargo Flow to Dulles International within the Catchment Area
- Grow Belly Cargo
- Encourage Expansion and Promote Dedicated All-Cargo Freighter Service
  - Work with Shippers and Freight Forwarders that Influence Service Decisions
  - Continuation of the Freighter Incentive Program (FIP)
- Develop Infrastructure Including Cold Storage and Handling Equipment
- Develop Investor Interest in the Dulles Air Cargo Expansion Initiative
Dulles International’s Aviation Support Opportunities

- Fixed Base Operator (FBO)
- Maintenance Repair Overhaul (MRO)
  - Allows Airlines to Conduct Periodic Maintenance Checks at Varying Levels and Cut Time Aircraft is Out-of-Service
  - Increases Landed Weights Thereby Increasing Revenues
    - Facilitates Air Service Growth
- United Airlines Facility Approved
- Additional MRO
Dulles, at 50 years, can keep growing for another 50.
## IAD Potential

<table>
<thead>
<tr>
<th>Category</th>
<th>Current</th>
<th>Future</th>
</tr>
</thead>
<tbody>
<tr>
<td>Runways</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Annual Aircraft Operations</td>
<td>320,000</td>
<td>1,000,000</td>
</tr>
<tr>
<td>Terminals</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Concourse Tiers</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td>Gates</td>
<td>135</td>
<td>&gt;250</td>
</tr>
<tr>
<td>International Passenger Arrivals</td>
<td>4,000 per hour</td>
<td>&gt;8,000 per hour</td>
</tr>
<tr>
<td>Annual Passengers</td>
<td>23,300,000</td>
<td>75,000,000</td>
</tr>
</tbody>
</table>
Existing/Future Terminals and Concourses:

Saarinen Terminal (T1)

B
A
D
C

South Terminal (T2)

B
A
D
C
F
E
H
G
Land for Development

1,200 Developed Acres

3,000 Undeveloped Acres
Land for Development

Commercial Development – North Side
Land for Development

Commercial Development – West Side:

430 acres along Route 606

Illustrative Site Plan shows land uses:

- Commercial
- Office
- Conference
- Industrial
Planning and investment in Dulles 50 years ago has significantly influenced the growth, transportation network, and commerce of our region today.
Dulles has reserve capacity to lead the regional and state economies for another 50 years...if access planning and investment can match that potential.
“The Dulles Name Takes Off”

The Washington Post: Loudoun Extra; April 6, 1999

• “Companies within a 20-mile range of Dulles International Airport are incorporating Dulles into their names”
• “Dulles name has come to enjoy a certain cachet”
• “international name recognition, as well as its association with economic growth and technology…area’s high-tech reputation”
• “[Dulles] sounds more metropolitan”
Shaping the Region
1962 to 2012

- Dulles Airport
- Dulles Corridor
- Route 28
- Greenway
Surface transportation improvements in the 1960’s:

• Dulles Access Highway
• Capital Beltway
• I-66 (outside the Beltway)
• I-395
Surface transportation improvements in the 1970’s:

- Metrorail opens Downtown
- Beltway widens
Surface transportation improvements in the 1980’s:

- I-66 and Dulles Connector completed inside the Beltway
- Dulles Toll Road opened
- Orange Line of Metrorail opens to Vienna
- Route 28 Special Improvement Tax District established
- I-66 widened outside the Beltway
Surface transportation improvements in the 1990’s:

• Route 28 widened to six lanes and evolving to a freeway

• Dulles Toll Road widened…twice…with HOV

• Bus transit and carpooling facilities created

• Toll Road is extended as the Greenway

• Fairfax County Parkway opens

• I-66 widened outside the Beltway
Surface transportation improvements in the 2000’s:

- Route 28 interchanges added
- Dulles Greenway is widened
- Fairfax County Parkway is extended north of the Dulles Corridor
Source: MWCOCG Transportation Planning Board
Shaping the Region

Population Change from 2013 to 2040

Source: MWCOG Transportation Planning Board
Shaping the Region

Regional Employment (↑36%) 3,215,400 2013
4,378,100 2040

Montgomery County (939%)
529 737

Loudoun County (991%)
158 285

Arlington County (920%)
238 306

City of Alexandria (936%)
112 155

Fairfax County (933%)
[inc. Fairfax City + Falls Church]
705 935

Prince William County (979%)
[inc. Manassas + Manassas Park]
155 278

District of Columbia (923%)
801 983

Prince George's County (942%)
351 498

Charles County (926%)
66 83

1 dot = 250 Jobs

2013 Existing Employment
2040 Forecast Employment Growth

The Financially Constrained
LONG-RANGE TRANSPORTATION PLAN
FOR THE NATIONAL CAPITAL REGION

Adopted July 18, 2012
Regional Employment (↑36%)

<table>
<thead>
<tr>
<th>Year</th>
<th>Employment</th>
</tr>
</thead>
<tbody>
<tr>
<td>2013</td>
<td>3,215,400</td>
</tr>
<tr>
<td>2040</td>
<td>4,378,100</td>
</tr>
</tbody>
</table>

Shaping the Region
Change in Access to Jobs: 2013 to 2040

Change in # of Jobs within 45 Minutes
- Significant Loss < -300,000
- Moderate Loss -300,000 to -100,000
- Minimal Impact -100,000 to 100,000
- Moderate Gain 100,000 to 300,000
- Significant Gain > 300,000

The Financially Constrained Long-Range Transportation Plan for the National Capital Region
Adopted July 18, 2012
To access the potential of Washington Dulles International Airport and the world beyond you need…
To access the potential of Washington Dulles International Airport and the world beyond you need…access.
Transportation Needs for Continued Growth: Local Access

Dulles Loop

Rt. 606

Dulles Airport

Rt. 28

Rt. 50
Dulles Loop: 2030 Demand

Route 606 North: >160,000 vpd
Route 606 South: >200,000 vpd
Route 28: >300,000 vpd
Route 50: 98,000 – 125,000 vpd

Source: Dulles Loop Implementation Plan; May 2009, Michael Baker Jr., Inc. for WATF, DATA, Loudoun County, Fairfax County, MWAA, VDOT/CTB
Transportation Needs for Continued Growth: Interstate Access

Northern Virginia North-South Corridor of Statewide Significance (G)

Source: VTrans 2035 Update; Draft for Public Review, December 4, 2012; Virginia Office of Intermodal Planning and Investment
Transportation Needs for Continued Growth: Transit Access

Dulles Metrorail
McLean Station Pedestrian Bridge Installation
Route 7 and Route 123 Tunnels
Phase 2

- 11.4-mile extension from Wiehle Avenue in Reston to Ashburn
  - 6 stations:
    - Reston Town Center
      - Herndon
    - Innovation Center
    - Dulles Airport
    - Route 606
    - Route 772/Ashburn
  - Rail Yard & Maintenance Facility
- 5 Parking Garages
Phase 2 Package A

Completed Preliminary Engineering
February 2012

Qualifications Information Received
September 2012

Short-list Phase 2 Teams Selected
October 2012

Bechtel Transit Partners
Bechtel Infrastructure Corporation

Capital Rail Constructors
Clark Construction Group, LLC
Kiewit Infrastructure South Co.

Dulles APC Railbuilders
Archer Western Contractors, LLC
PCL Civil Constructors, Inc.
Corman Construction, Inc.

Dulles Metrorail Connectors
Skanska USA Civil Southeast / Granite Construction Company
G.A. & F.C. Wagman, Inc. / Trumbull Corporation
Facchina Construction Company, Inc.

Silver Line Constructors
Fluor Enterprises, Inc. / Tutor Perini Corporation / Stacy and Witbeck, Inc.

Price Proposals Due
April 2013

Contract Awarded
May 2013
Dulles Airport Rail
Dulles Airport Station
Phase 2 Station Prototype
Ronald Reagan Washington National Airport
Dulles Corridor Metrorail Project
Dulles Toll Road
Washington Dulles International Airport