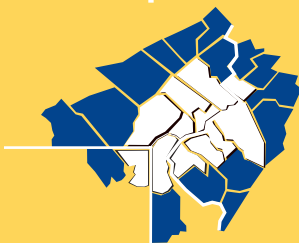




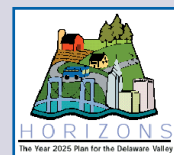
**2025 REGIONAL AIRPORT SYSTEM PLAN  
FOR THE DELAWARE VALLEY REGION**



**APRIL 2001**



**DELAWARE VALLEY REGIONAL  
PLANNING COMMISSION**







**DELAWARE VALLEY REGIONAL PLANNING COMMISSION**

The Bourse Building  
111 South Independence Mall East  
Philadelphia, PA 19106

215-592-1800  
[www.dvrpc.org](http://www.dvrpc.org)

**2025 REGIONAL AIRPORT SYSTEM PLAN  
FOR THE DELAWARE VALLEY REGION**



**APRIL 2001**

Created in 1965, the Delaware Valley Regional Planning Commission (DVRPC) is an interstate, intercounty and intercity agency that provides continuing, comprehensive and coordinated planning to shape a vision for the future growth of the Delaware Valley region. The region includes Bucks, Chester, Delaware, and Montgomery counties, as well as the City of Philadelphia, in Pennsylvania; and Burlington, Camden, Gloucester and Mercer counties in New Jersey. DVRPC provides technical assistance and services; conducts high priority studies that respond to the requests and demands of member state and local governments; fosters cooperation among various constituents to forge a consensus on diverse regional issues; determines and meets the needs of the private sector; and practices public outreach efforts to promote two-way communication and public awareness of regional issues and the Commission.



Our logo is adapted from the official DVRPC seal, and is designed as a stylized image of the Delaware Valley. The outer ring symbolizes the region as a whole, while the diagonal bar signifies the Delaware River. The two adjoining crescents represent the Commonwealth of Pennsylvania and the State of New Jersey.

---

DVRPC is funded by a variety of sources including federal grants from the U.S. Department of Transportation's Federal Highway Administration (FHWA) and Federal Transit Administration (FTA), the Pennsylvania and New Jersey departments of transportation, as well as by DVRPC's state and local member governments. This study is funded through the continuing aviation planning grant from the Federal Aviation Administration (FAA). The authors, however, are solely responsible for its findings and conclusions, which may not represent the official views or policies of the funding agencies.



# TABLE OF CONTENTS

<b>EXECUTIVE SUMMARY</b> .....	1
<b>I. INTRODUCTION</b> .....	3
<b>II. REGIONAL AVIATION PLANNING ISSUES AND TRENDS</b> .....	7
<b>III. 2025 RASP OBJECTIVES</b> .....	11
<b>IV. STATUS OF THE 2020 RASP</b> .....	13
1. Commercial Airports .....	13
2. Reliever Airports .....	13
3. General Aviation Airports .....	18
4. Issues at Specific Facilities .....	18
5. 2025 Proposed Regional Facilities .....	20
<b>V. 2025 POPULATION, EMPLOYMENT AND AVIATION DEMAND</b> .....	23
1. Population and Employment Forecast .....	23
2. Development of 2025 Operations and Based Aircraft .....	24
<b>VI. SYSTEM DEFICIENCY ANALYSIS AND ALTERNATIVE SOLUTIONS</b> .....	33
1. Market Area Coverage .....	33
2. Commercial Capacity .....	34
3. Non-Commercial Capacity .....	35
4. Helicopter Capacity .....	36
5. Airport Physical Condition .....	37
6. Airspace Issues .....	38
7. Policy, Licensing, and Programmatic Deficiencies .....	38
<b>VII. 2025 REGIONAL AIRPORT SYSTEM RECOMMENDATIONS</b> .....	41
1. 2025 RASP Objectives and Issues .....	41
2. Recommended 2025 System Facility Coverage .....	42
3. 2025 Recommended RASP Facilities and Improvements .....	43
4. Reliever and General Aviation Airports .....	49
5. Heliports .....	49
<b>VIII. IMPLEMENTATION OF 2025 RASP RECOMMENDATIONS</b> .....	51
1. Capital Cost and Subsidies .....	51
2. Eligibility and Priority .....	52
3. Regulatory and Programming Strategies .....	53
<b>IX. APPENDIX</b> .....	57





# EXECUTIVE SUMMARY

DVRPC is funded by the Federal Aviation Administration (FAA) for the purpose of maintaining aviation system planning activities for the twelve-county, four-state Philadelphia metropolitan area. Part of this effort involves developing and revising, as necessary, a long-range airport system plan which will provide for mobility and economic development twenty to twenty-five years into the future, with optimal safety at minimal cost to the public.

## **Development of the 2025 Regional Airport System Plan**

The first Regional Airport System Plan (RASP) was adopted in 1982 and defined aviation facility needs to the Year 2000. Because of changes in aviation demand brought on by deregulation, market forces, and the sale of privately owned airports, the Year 2000 RASP was amended in 1988. Then, with the long-range horizon of 2000 approaching, and regional aviation facilities supply and demand evolving, an updated RASP reflecting demand and supply projections and facilities recommendations to the Year 2020 was developed and adopted in 1995. With further drastic changes in the demand, capacity, programmatic and community involvement components of the aviation market, the RASP was updated again in 2001 to reflect these changes and a horizon of 2025.

DVRPC staff, in cooperation with the DVRPC Regional Aviation Committee (RAC) representing all public and private sector aviation interests in the region, completed an inventory describing current aviation facilities, both fixed wing and rotorcraft, and usage levels in terms of passengers, aircraft operations, and based aircraft. In 2000, annual levels of commercial flights in the region served by Philadelphia International

Airport (PHL) were 430,000. There are about 1,200,000 non-commercial business and recreation aircraft operations per year in the region, and 2,580 based aircraft.

Aviation trends and issues were then discussed. Storage capacity in the suburbs for corporate aircraft is in short supply. Some airports do not have runways of adequate length for business aircraft, which could limit corporate growth. Some suburban areas of the region are at risk of losing airport access, if privately owned public use airports are not committed to continue operation. Finally, to provide the best regional commercial passenger and freight service, delays at PHL should be reduced, and operating capacity must be increased.

Using several projection models, based on FAA and states' planning activities, as well as regional trend data describing utilization of RASP airports, forecasts of 2025 passenger volumes, aircraft operations, and based aircraft were developed for the region as a whole, then subdivided by state. Forecasts were assigned to individual airports on the basis of location, market area, airport type and capacity, and available services.

Projections of commercial growth in operations and enplanements have increased since 1995. A 30% increase in commercial aircraft take offs and landing is expected to 2025 at PHL and Trenton-Mercer. Only a 17% increase in non-commercial operations, at general aviation and reliever airports is expected. These projections were reviewed by the Regional Aviation Committee and individual airports and consensus was reached.

After reaching regional consensus regarding growth expectations, development, and mobility issues for the regional aviation system, the RASP recommends facilities and

capital improvement investments, and programmatic changes, needed to successfully address identified deficiencies.

### **2025 RASP Facilities and Capital Costs**

Three commercial airports, Philadelphia International, Trenton-Mercer, and New Castle County, must be retained, with major expansion activity at PHL, and Trenton Mercer. Business/reliever airports necessary to be retained in the RASP include Northeast Philadelphia, Doylestown, Penndel, Pottstown-Limerick, Wings, Brandywine, New Garden, Chester County, Summit Cross Keys, South Jersey Regional and Trenton-Robbinsville. General aviation airports also included in the RASP are Quakertown, Pottstown Municipal, Perkiomen Valley, Cecil County, Flying W, Red Lion, Van Sant, Camden County, and Spitfire. All airports identified as necessary to meet 2025 needs are existing facilities.

For rotorcraft, five existing heliports are included in the RASP: Keystone, Valley Forge, Total RF, Horsham Valley, and Sterling (Penns Landing) Heliport. Two sites, in Trenton and Wilmington, are proposed in the RASP for heliport construction.

The plan recommends \$1.2 - 2 billion in capital improvement projects. Major investments prescribed in the RASP include increased airside capacity at PHL; public acquisition of three privately owned public use airports in suburban counties; extension of five suburban runways to business length; construction of hundreds of corporate hangar spaces and additional T-hangars; and upgrading of electronic approaches at most airports to GPS, and additional Remote Communications Outlets (RCOs) to expedite communication between pilots and air traffic control. Pavement preservation investments are also recommended.

### **2025 RASP Implementation**

Specific actions, other than capital investment, which support realization of the 2025 RASP recommendations are also identified in this document. Municipal zoning to protect airport operations should be implemented at several suburban municipalities. Funding programs should be made more equitable so all airports, both privately and publicly owned, can receive public subsidies as needed. Licensing procedures should support transfer of ownership when airports change hands. Regional capital priorities should be better integrated into states funding programs.

The financing of airport improvements will come predominantly from the region itself, although federal and states' grant programs will continue at increased levels in the short term. Local bond issues and locally collected Passenger Facility Charges (PFC) at PHL will provide most of the resources for the airports expansion. Suburban airports rely on private funds as well as state and some federal support. State grant programs will become more important to the region since they will represent a larger percentage of total funds received, with the inclusion of federal block grants in New Jersey and Pennsylvania.

Successful implementation of the 2025 RASP will result in a better airport service and operation, promote economic development, improve safety and mobility, and enhance the overall well-being of the region. Funding of the recommended improvements is a shared responsibility among private companies and governmental agencies. The existing airports in the Delaware Valley should be preserved in order to meet the current and future regional aviation needs and to compete with other regions in the 21st century.





# I. INTRODUCTION

DVRPC is the regional planning agency with contractual responsibility to FAA for aviation systems planning in the Philadelphia metropolitan area. This region includes 12 counties in and around Philadelphia, in Pennsylvania; Montgomery, Bucks, Chester, Delaware, and Philadelphia, in New Jersey; Salem, Gloucester, Burlington, Camden, Mercer, in Delaware; New Castle, and in Maryland; Cecil County, see Map I-1. This 2025 Regional Airport System Plan (RASP) is an update of the 2020 RASP, designed to measure airport facilities demand, and needed enhancements, currently and in the long term with a planning horizon of 20 years. In 1995 the 2020 RASP was adopted by the DVRPC Board reflecting increasing development pressure on suburban airports, closure of some privately owned airports, and significant increases in demand for commercial aviation. It was also anticipated that general aviation demand in the region for recreation and business would increase disproportionately more than population and jobs to year 2020. The 2020 RASP identified over \$740 million of projects at 32 critical facilities.

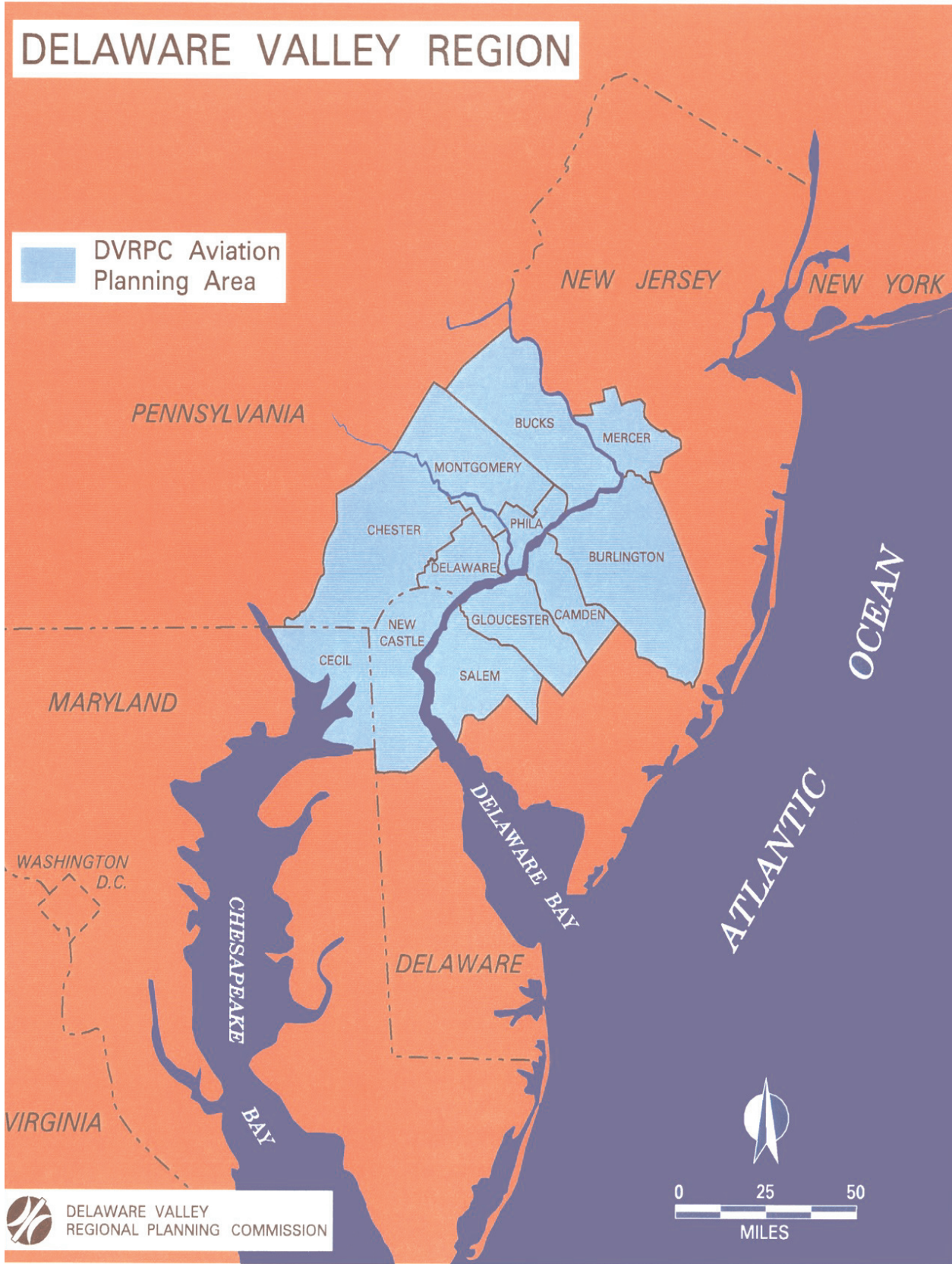
Although only five years have passed since the last system plan was prepared, numerous cathartic events have taken place in the region, in the aviation industry, and within policy circles at the states and federal level which necessitates an update and possibly

major revisions to the RASP. Extreme community opposition has been registered against numerous 2020 RASP identified airport projects resulting in the potential loss of adequate future aviation capacity and improved safety. The existence of an updated and current plan allows state DOTs and the FAA, the two governmental levels primarily involved with public sector aviation infrastructure investment, to respond to and integrate regional needs and emphasis into state and national perspective. The RASP also encourages that appropriate levels of investment are directed to the DVRPC region for its own optimal growth, and that our aviation system will be a complement to the national systems of GA, business and commercial airports.

In summary, the 2025 DVRPC Regional Aviation System Plan identifies the need for twenty four airports, and five heliports for civilian use. This represents one less airport and one heliport edition and one proposed heliport deletion from those adopted in 1995. Major improvements at these facilities include significant expansion for commercial capacity at New Castle and Trenton Mercer airports. In the suburbs, major recommendations include selected runway extensions to better serve business aircraft, and more hangar and ramp storage. Cost for non-commercial improvements total \$159,700,000. Improvements at the small commercial

# DELAWARE VALLEY REGION

 DVRPC Aviation Planning Area



 DELAWARE VALLEY REGIONAL PLANNING COMMISSION

airports, Trenton Mercer and New Castle are estimated at \$60,000,000. Major airside expansion at PHL will be defined through its master plan, currently in development, and costs could reach \$1-2 billion. Of the twenty nine facilities identified, fourteen are eligible for federal subsidies, while others must rely on state or private investment capital.

Several policy and program deficiencies have been identified which, if not addressed at the state's and federal levels, will contribute to the loss of public funding regionally, airport closures, and lost economic activity and mobility within the region.





## II. REGIONAL AVIATION PLANNING ISSUES AND TRENDS

Since the development and adoption of the 2020 RASP for the region in 1995, several changes have occurred, physically within the system, policy related at funding and regulatory levels, and at the level of community integration. All these factors precipitate the need for the RASP update. In particular they are:

### 1. CHANGES IN REGIONAL DEMOGRAPHICS

Since 1995, the region has experienced continued suburbanization resulting in increasing numbers of population and employment concentrations in the suburbs. This has increased the pressure opposing airport expansion since development is occurring adjacent to airport property.

### 2. CHANGES IN AIRPORT TRAFFIC SOURCE LEVELS

PHL continues to experience increased passenger traffic (5% per year) and FAA projections are for continued growth to 2025. Regionally, GA and corporate airports as a group have experienced no growth, however certain airports have significantly more traffic, some significantly less due to local factors. Also, fleet/operations mix in the suburbs has shifted toward corporate aircraft although they remain in the minority at all airports. Freight traffic is growing significantly in the region,

especially at commercial service airports.

### 3. CLOSURES OF AIRPORTS FROM THE PERIOD SINCE 1995

Cecil County Airport in Maryland and Buehl Airport in Bucks County closed while Oldmans, now known as Spitfire Aerodrome, remained decommissioned for a lengthy period of time while a new operator was found. Other small non-RASP airports closed throughout the region including New Hanover, Oxford, and others. These losses of operating and storage capacity, as well as system market area coverage, result in shifts of demand within the region.

### 4. LOCAL POLITICS AND CITIZEN OPPOSITION

All non-commercial airports in the RASP, which are presently applying for capital improvement funding, that will increase safety and capacity by extending runways or acquiring land, are experiencing severe opposition from neighbors and in some cases municipal and state elected officials. Recent crashes of GA aircraft in the region increase community opposition. Airport development as recommended in the 2020 RASP is being held up at South Jersey Regional, Wings, Quakertown, Trenton Mercer, Brandywine, and Perkiomen Valley. Neighbor opposition has gone as far as the passage of possibly

unconstitutional legislation at the state level restricting funding to specific airports worthy and necessary projects. More centralized system goals identification and leadership in implementation is needed at the regional and states levels. Airports with the space to expand and the potential to receive grants should be favored over those which are geographically or politically constrained if airport choices exist in a particular market area.

## **5. BIAS AGAINST PRIVATELY OWNED PUBLIC USE FACILITIES**

Over 70 percent of the regional non-commercial/reliever/GA capacity is owned by private entities, either individual or corporate. Public capital subsidy competition is more difficult for privately owned airports since funding options are fewer. Privately owned facilities are more easily restrained in development by local governments and more frequently targeted by citizen's groups since capital subsidies to them are perceived as public taxes serving private profit making facilities. Recent attempts to take two private RASP airports into the public domain have not succeeded. Montgomery County is no longer trying to acquire Wings, while New Garden Township and New Garden Airport negotiations are stalled. State's regulation and licensing standards for privately owned airports remains as strict as these for publicly owned airports, though capital resources are not as available for the private contingent. Resale of privately owned airports to new owners triggers financial penalties to both parties.

## **6. PAVEMENT CONDITION KNOWLEDGE**

DVRPC and the states of Pennsylvania and New Jersey have completed pavement studies of most RASP airports. Pavement condition, capital cost estimates and system priorities are now available to be incorporated into updated system and facility recommendations.

## **7. CHANGES TO FEDERAL AND STATE'S CAPITAL IMPROVEMENT PROGRAMS**

Pennsylvania and New Jersey have become block grant states thereby entitling them to control distribution of Airport Improvement Program (AIP) state apportionment grants, traditionally distributed directly to GA/reliever airports by the state Airports District Office (ADO) offices of FAA. Also in early 2000, Congress approved and the President signed multi-year AIP authorizing legislation creating various categorical programs and funding criteria. Recently FAA changed its criteria for airport AIP eligibility for reliever airports from 50 to 100 based aircraft, impacting several privately owned public use airports in the region.

## **8. LOCAL ZONING, LAND USE PRACTICES AND CELL TOWER CONSTRUCTION**

Several townships have adopted FAR Part 77 zoning protection for airports in Pennsylvania. In New Jersey, lesser zoning protection exists, however enforcement and enforceability have been questioned in

specific cases. Land use policies, or lack thereof, is impacting airport operations and preservation in a number of locations. Also in recent years, the proliferation of cell towers serving cellular communications companies has adversely impacted approaches to some airports.

## **9. AIRSPACE CONGESTION ALONG THE EAST COAST CORRIDOR**

With increasing commercial traffic at EWR, LGA, JFK, PHL, BWI and through GA/corporate traffic, comes capacity delay in the air, which compounds delays relating to airside ground facilities. The placement of most corporate and GA operations at relievers on the fringes of congested airspace is desirable. Also, as FAA reexamined and modifies airspace control areas between the terminal control of each commercial airport as well as New York Tracon, the positive impacts on SASP's and RASP's should be considered.

## **10. AIR QUALITY CONFORMITY**

Changes or increases in aircraft operations and ground access trips will result in possible increases in pollution emission. These changes must be analyzed in light of State Implementation Plan (SIP) conformity before capital projects can be advanced.







### III. 2025 RASP OBJECTIVES

Given the very dynamic state of aviation demand, facilities development and acceptance, and state and federal aviation policy and programs, the 2020 plan recommendations should be revised in the RASP 2025 Update. Evolving conditions at each airport as discussed also require plan update. Objectives below have been modified from those of the 2020 RASP in light of events which occurred in the last five years.

As with the RASP 2020 document, the 2025 plan objectives are proposed as guidance for the strategies and recommendations to be developed.

1. Provide adequate regional commercial aviation operation capacity with increased safety and minimum delay to serve population and employment concentrations in the region within one hour travel time.
2. Provide adequate business and general aviation aircraft operating and storage capacity within one half hour of population and employment centers.
3. Preserve essential existing aviation facilities and improve select facilities regarding runway length, width, guidance systems, and apron/hangar capacity to satisfy suburban market area demand and provide sufficient non-commercial reliever capacity to ensure maximum commercial utilization of PHL.
4. Expand airports as needed to support development which integrates environmental preservation and neighborhood concerns regarding safety, noise, and pollution.
5. Provide recommendations for the regional system with the objective to fully satisfy regional commercial and business mobility needs relating to economic development, business travel, medical services, and recreational aviation uses.
6. Provide exclusive, center city based helicopter service for commuters, medical service, and police functions at the regions major urban centers.
7. Where possible, transfer ownership of public use airports from private to public owners. Where private owners remain in control, provide public capital subsidies in support or match of private investment.
8. Provide and improve facilities which efficiently facilitate intermodal access and transfers.
9. Pursue capital subsidies from Federal and State sources which represent the regions "fair-share" of statewide annual allocations based on population, employment, based aircraft operations or other appropriate criteria.





## IV. STATUS OF THE 2020 RASP

Since 1995, many airports have proceeded with development through private sources and federal/state/local funding guided by master plans. Map IV-1, Graph IV-1 and IV-2 and Table IV-1 describe the existing facilities in the RASP, summarize most current usage in terms of operations and based aircraft, and list status of development activity from 1995 to 2000, respectively. Airports not listed in table IV-1 have little or no development activity during the period funded by state or federal programs.

Airports are divided into the functional categories of commercial, reliever and general aviation. These categories define the specific role of the airport in the system, while also corresponding to the funding program eligibility definitions established by FAA for the AIP program.

### 1. COMMERCIAL AIRPORTS

Commercial airports serve scheduled service airlines, corporate aviation and, in the case of New Castle and Trenton-Mercer, some military operations. These airports are publicly owned, and receive formula funds from AIP each year in relation to passenger enplanements. They are also eligible for discretionary grants from FAA, and state grants, on a project by project basis. Given the high level of revenues from passengers, local funds also are generated directly and

from bond issues to support non-federally eligible projects. In the DVRPC region, all three commercial airports are located centrally in the region in the older urban high density areas along the Delaware River.

### 2. RELIEVER AIRPORTS

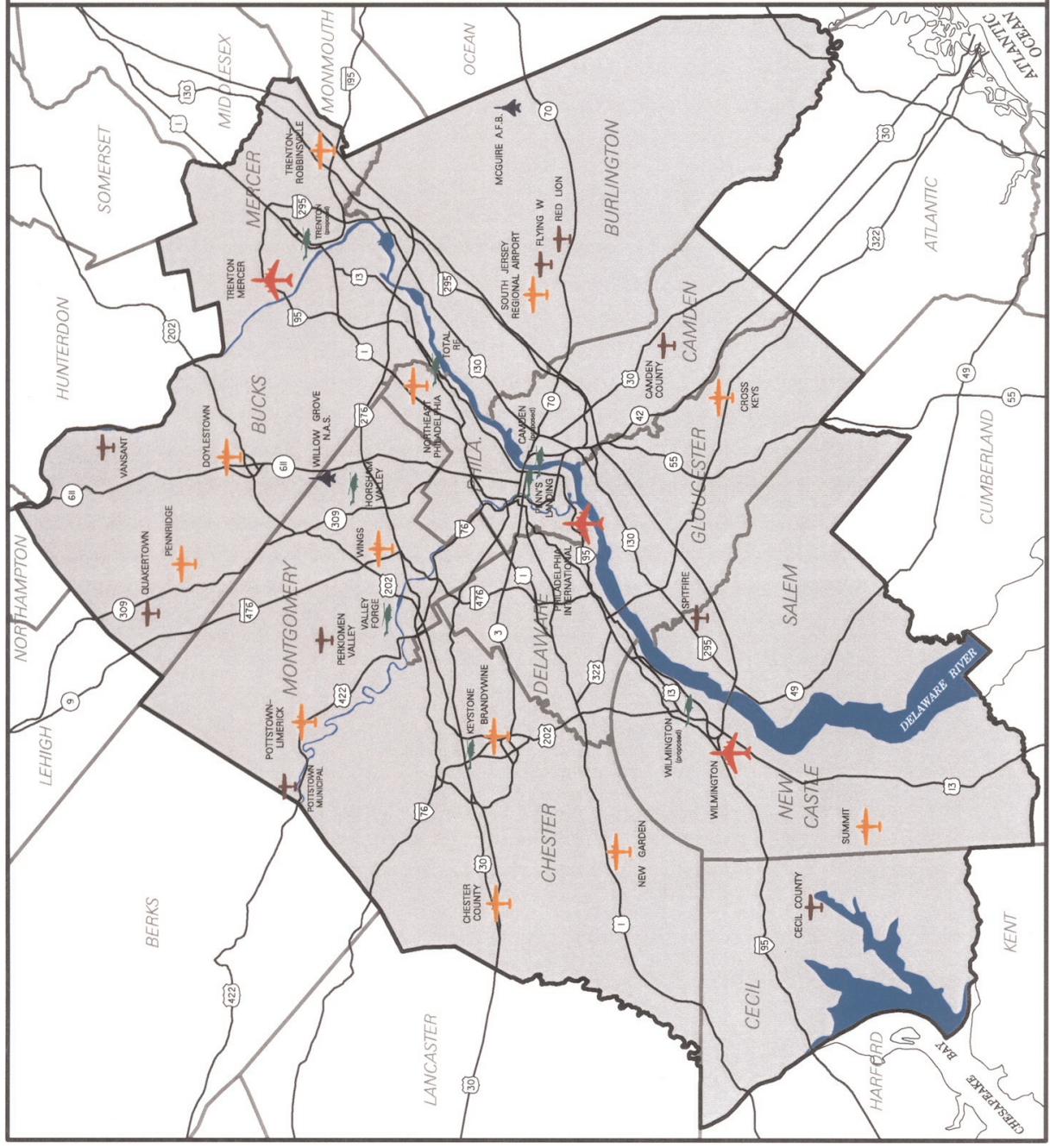
Reliever airports surround the central commercial airports, and are located in the suburbs. The categorical name represents their role in providing a high level of capacity for operation and storage of single engine, twin and small jet aircraft away from the commercial airports and near suburban business centers. This has the two fold systematic benefit of 1) reducing GA-business demand at the commercial airports so the operating capacity of the taxiway-runway systems can be devoted to high passenger volume commercial aircraft, and 2) distributing operations around the region and out of the most congested central air traffic control sectors, thereby reducing delay, noise impacts and improving safety. In both New Jersey and Pennsylvania, reliever airports which can be either publicly or privately owned but necessarily open to all aircraft, rely on federal/state apportionment grants, distributed through the block grant programs, and state aviation development grants, both distributed on a project basis by the states. Several regional privately owned relievers have had significant owner investment in their facilities

# DELAWARE VALLEY REGIONAL AIRPORT SYSTEM

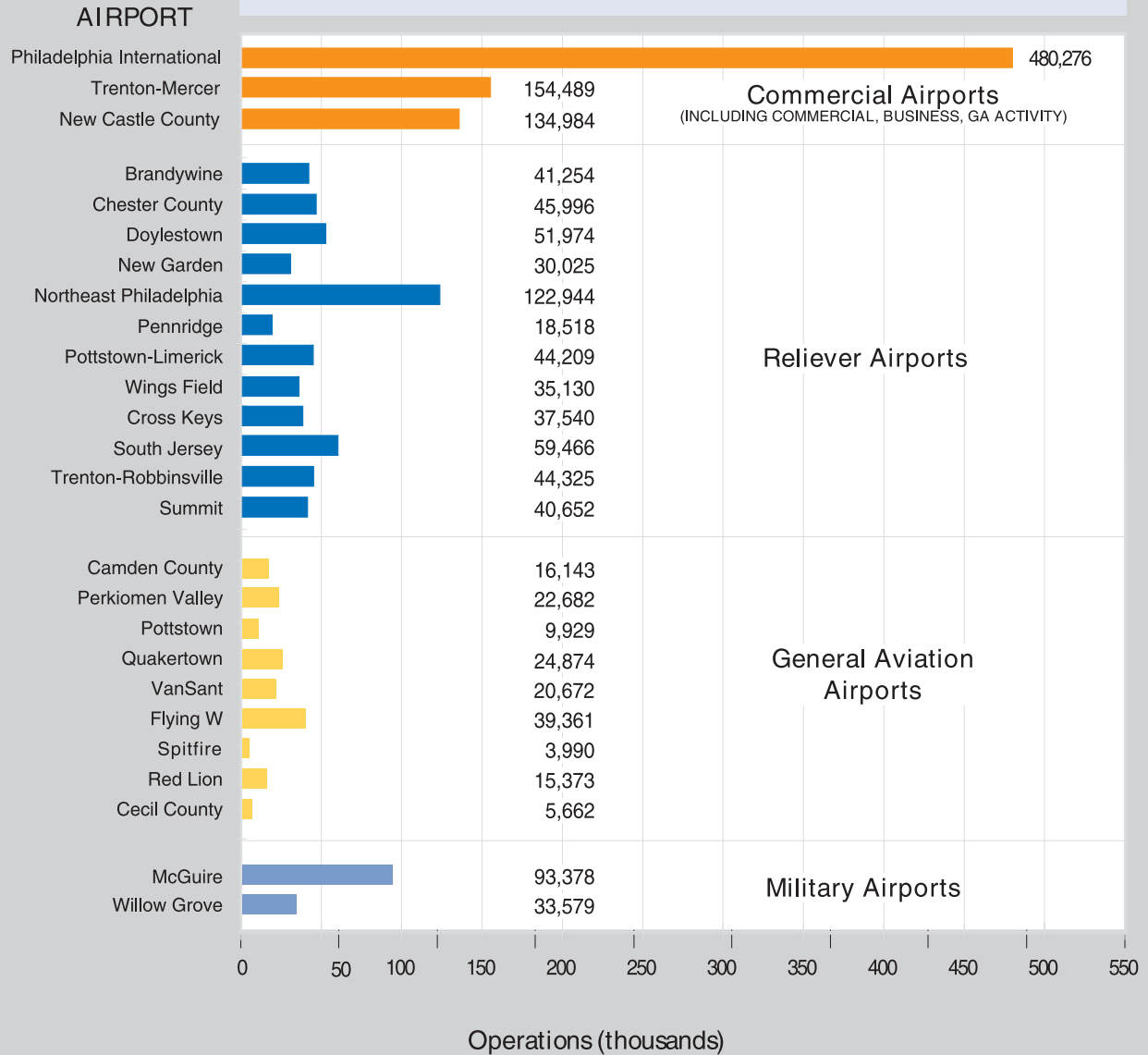
-  **COMMERCIAL AIRPORT**  
PROVIDING SCHEDULED AIR CARRIER AND GENERAL AVIATION SERVICES. INTERNATIONAL, DOMESTIC, AND CHARTER DESTINATIONS
-  **RELIEVER AIRPORT**  
PROVIDING CORPORATE, SOME CHARTER AND PERSONAL GENERAL AVIATION SERVICES. NO INTERNATIONAL, DOMESTIC, OR CHARTER OPERATIONS.
-  **GENERAL AVIATION AIRPORT**  
PROVIDING LIMITED CORPORATE AND PERSONAL GENERAL AVIATION SERVICES. NO INTERNATIONAL, DOMESTIC, OR CHARTER OPERATIONS.
-  **MILITARY AIRPORT**  
NO CIVILIAN USE
-  **HELIPORT**  
LOCAL AND EAST COAST HELICOPTER OPERATIONS. VISUAL FLIGHT RULES ONLY



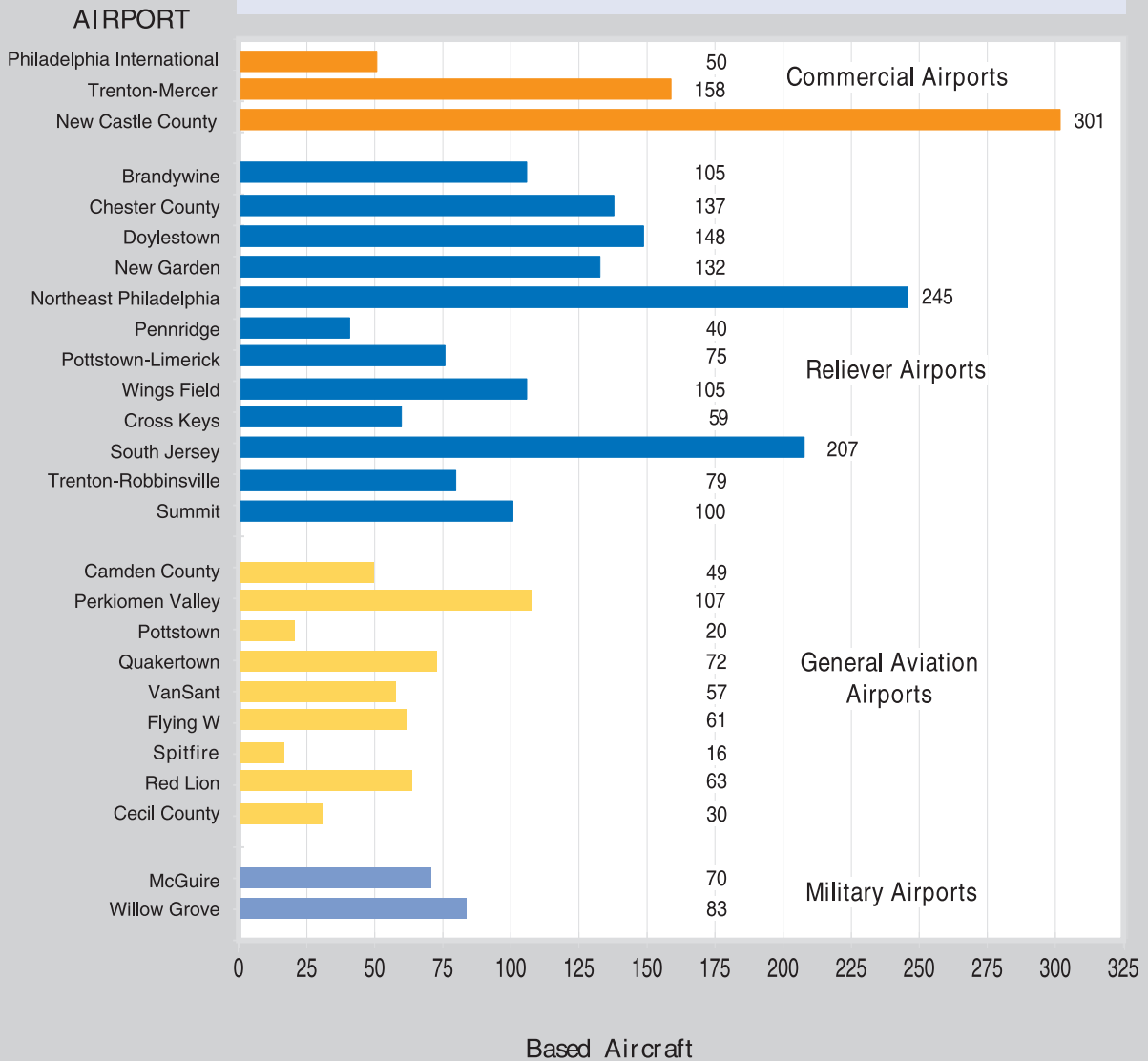
 DELAWARE VALLEY REGIONAL PLANNING COMMISSION



## GRAPH IV - 1 CURRENT TOTAL ANNUAL OPERATIONS



## GRAPH IV - 2 CURRENT BASED AIRCRAFT



**TABLE IV-1**  
**AIRPORT DEVELOPMENT ACTIVITY 1995-2000**

<b>AIRPORT</b>	<b>RASP PROJECT</b>	<b>STATUS</b>
PHL	Commuter Runway Overseas Terminal Commuter Terminal Highway Ramp	Complete Under Construction Under Construction Under Construction
Trenton Mercer	New Taxiways Terminal Improvements Terminal Expansion and Landside Facilities	Complete Complete Master Plan Complete EA with FAA
New Castle	ATC Tower Improved Taxiways	Complete Complete
Chester County	Land Acquisition for Hangars	Acquired
Wings Field	Runway Extension Taxi, Ramp Expansion	Master Plan/EA Complete Awaiting Funding
South Jersey Regional	Runway Extension	Master Plan/EA Ongoing
Pottstown-Limerick	Acquired Land for Runway Extension Hangars	Complete Master Plan Complete
Penridge	Runway Extension Airport Expansion	Master Plan Complete Funds Denied
Doylestown	Land Acquisition for Storage Airport Expansion	Complete Master Plan Ongoing
Brandywine	Runway Extension Airport Storage Capacity	Complete Master Plan Ongoing
Cecil Count (Raintree)	New Runway Taxiway Paving	Complete Complete

without the match of public grants. Facilities at reliever airports vary from 5,500 feet runway and ILS approach to 2,800 feet and non-precision approach guidance. However, relievers usually reflect higher based aircraft and operations usage or serve a critical market area in the suburbs where no other aviation capacity exists.

### 3. GENERAL AVIATION AIRPORTS

General aviation airports serve similar general aviation and business traffic but usually have lower volume of users, smaller aircraft or serve market areas where other capacity options exist. These airports, if recognized in the federal NPIAS and publicly owned, are also eligible for federal apportionment funds and state funding.

If privately owned, they are only eligible for state based grants, assigned on a project basis in competition with other airports.

### 4. ISSUES AT SPECIFIC FACILITIES

**a. Philadelphia International** - Additional airside operating capacity is needed now and in the next 25 years to accommodate growth of enplanements. This growth of enplanements will be stimulated by the completion of overseas terminal 1 and commuter terminal F, and expansion of terminals D & E, which also increase competitive opportunities for more airlines. The airport is preparing an airside master plan update. Other possibilities are the creation of a new airport to complement PHL, and more intense use of Trenton Mercer and New Castle. The PA legislature and the City are

currently negotiating the potential to privatize parts of PHL, which may improve revenues, but will not increase operating capacity. Although a new runway, 8-26, has been completed recently, its impact on airside capacity is minimal without other ATC, airspace or runway improvements. The installation of a Precision Runway Monitoring (PRM) equipment will allow simultaneous increased use of 8-26 and 9-27 in the west flow. New terminals 1 and F provide for more passenger handling capacity which emphasizes the need for more airside capacity.

**b. Trenton Mercer** - Planning is underway for terminal improvements at this airport which serves commercial and business uses. Neighborhood opposition in New Jersey and across the Delaware in Pennsylvania has created delay and internal disagreement in Mercer County government, where all aspects of the master plan, environmental assessment, economic impacts analysis are being contested. Many neighbors have also registered support for additional service options at Trenton. Improvements will not increase the size of aircraft using the facility, but more passengers could be handled. Future aircraft operations are expected to be quieter due to technical innovation in aircraft design and airspace configuration improvements.

**c. New Castle County** - The airport has recently completed a new ATC tower and hangar expansion for corporate tenants. The 7,200 feet fully ILS runway can support commercial activity, but the airport must expand terminal facilities and car parking capacity. Currently the airport is



concentrating on corporate business. It can accommodate regional jets, and is expanding hangar capacity for corporate clients. Its location 40 minutes from PHL and 1.25 hours from BWI in the dense northeast corridor makes it a prime location as a non-primary commercial facility, especially with the capacity shortfall at PHL.

**d. Pottstown Limerick** - This airport is advancing an environmental assessment regarding a westerly runway extension. Good relations with the local township exist and, contiguous land needed for extension is under airport control. Philadelphia Electric Co., the original owner, must be committed to providing local match to extend the runway. PECO's recent merger with a mid-west utility to former Excelon Generation Comp-LLC may impact their commitment to develop the airport.

**e. Wings** - The planning and design are completed for a runway extension of 1,200 feet where land needed is under airport control, zoning approvals and building permits issued. Public funding either from PennDOT or FAA is being held up by Whitpain Township under State law 2210 due to neighborhood opposition. The project is a high priority of the RASP, and the owners could build it with private funds.

**f. Quakertown** - Planning is underway for a 600 foot extension of the runway, some neighbor concern has been raised. Airport activity has declined due to closure of the flight school, but adjacent business development has the potential to expand.

**g. South Jersey Regional** - Master planning for runway extension has been completed. Strong neighbor and municipal opposition has been registered to any of the three alternative development schemes. Most land needed for expansion is available to the airport.

**h. Spitfire Aerodrome** - Under new ownership, the Airport Layout Plan Study will determine if the runway can be extended. Conveniently located adjoining I-295, it is the only public use airport available in Salem County.

**i. Cross Keys** - This airport is the only public use airport in Gloucester County. Publicly supported capital improvements have been held up by lack of consensus by private owners on development plans and sponsor commitment. Recently, FAA removed the airports reliever designation since based aircraft fell below 100.

**j. New Garden** - The private owner wants to sell and place the airport in the public domain. Township has vacillated regarding its willingness to take over the airport. FAA and State funding so far has not been available to assist in acquisition. The airport is necessary in the regional system to provide market area coverage to the southern Chester County portion of the region and to serve reliever demand of 120 based aircraft.

**k. Perkiomen Valley** - This privately owned general aviation airport recently received a tentative capital grant allocation from PennDOT to do much needed runway widening and obstruction removal. Local neighbors and the Skippack township have used State Law 2210 to deny the grant to this airport.

**I. Brandywine** - This privately owned reliever airport, which was released from sponsor assurances of a 1986 grant in 1996, was purchased by a group of aviation users/investors in 1996 to maintain and retain the facility as an airport. Recently the partners built a short runway extension with private funds, but without FAA/PennDOT environmental or planning oversight. FAA and PennDOT involvement and financial support should be established to retain this airport in the future. The master plan update, which is underway will establish potential land acquisition needs for expansion to protect against obstructions.

**m. McGuire AFB** - This high capacity commercial level military airport in rural Burlington County, New Jersey has experienced numerous runway, taxiway and traffic control improvements since 1995. Periodically, the airport is considered for joint civilian-military use, which would increase regional capacity and perhaps improve traffic flow and reduce delay along the northeast corridor, however, informal response to civil use has been negative, from the Air Force.

**n. Chester County and Doylestown** - These major reliever airports in Chester and Bucks County, respectively, have recently acquired land for hangars and aircraft storage needed to accommodate increased basing demand. However, both airports are experiencing operating constraints due to noise and limitations of available real estate, due to nearby residential development.

**o. Trenton Robbinsville** - Preliminary negative reaction has been received from certain neighbors regarding master plan

issues and additional hangar capacity. The master plan was modified to reflect neighbor concerns.

**p. Pennridge** - The recent reduction in the number of based aircraft, and an increase in based aircraft criteria for funding eligibility in AIP has resulted in the loss of federal eligibility. The owner wants to continue with runway extension development to provide the only corporate twin/small jet airport in Bucks County.

**5. 2025 PROPOSED REGIONAL AVIATION FACILITIES**

In response to the stated aviation planning objectives, issues, and airports status, the 2025 RASP proposes the following facilities to serve the region into the future. Justification for these selections and capital facilities enhancements will be developed in chapters VI and VII.

**Commercial Airports**

- Philadelphia International
- New Castle County
- Trenton Mercer

**Reliever Airports**

- Brandywine
- Chester County
- Doylestown
- Northeast Philadelphia
- South Jersey Regional
- Pennridge (regional recommendations)
- Summit
- Pottstown Limerick
- Wings
- Cross Keys (regional recommendations)
- Trenton-Robbinsville

**General Aviation**

Perkiomen Valley  
Pottstown Municipal  
Quakertown  
Van Sant  
Camden County  
Flying W  
Spitfire Aerodrome  
Red Lion  
Cecil County

**Heliports**

Penns Landing  
Keystone  
Horsham Valley  
Total RF  
Valley Forge  
Trenton (proposed)  
Wilmington (proposed)





## V. 2025 POPULATION, EMPLOYMENT, AND AVIATION DEMAND

In order to maintain a functioning and prosperous Delaware Valley Region, an adequate aviation infrastructure that will meet its future demand is absolutely necessary. A suitable and safe airport system should offer more than just a landing strip and a few tie-downs for the aviation enthusiast. All aspects of the aviation industry, including business and general aviation, passenger travel and aviation education, are vital components of an economically and socially contributing and functioning regional airport system. To design a facility plan providing adequate capacity, safety upgrades and equitable access to aviation facilities for all Delaware Valley residents, whether urban, suburban or rural, future aircraft activity estimates have to be reasonable. Overly conservative projections, requiring less capital input, may underestimate potential market demand and result in facility recommendations that do not equip the region for economic growth. On the other hand, overly aggressive projections can lead the region into aviation development that will not provide optimal return on the investment.

The 2025 forecasts should include operations and based aircraft for commercial, general aviation, military and helicopter totals. These forecasts should be based on the newest population and employment forecasts with the DVRPC twelve county aviation region in mind. In addition to the population and employment

forecasts, the historic results of DVRPC's aircraft operation counting program, describing annual aircraft operations at each RASP airport over the past 14 years, were compared and used as the base numbers for the 2025 forecast. The most recent FAA Terminal Area Forecast (TAF), the latest States Aviation System Plans (SASPS), as well as various Airport Master and Airport Layout Plans were also evaluated and compared in this forecast process, to ensure a most reasonable projection of future aircraft operations and based aircraft in the Delaware Valley Region.

### 1. POPULATION AND EMPLOYMENT FORECAST

Recently, DVRPC completed the development of 2025 population and employment forecasts for counties and municipalities in the Delaware Valley Region. These forecasts were adopted by the DVRPC Board on February 24, 2000. Three counties, Salem in New Jersey, New Castle in Delaware and Cecil in Maryland were added to the DVRPC totals. Salem's population and employment forecasts are provided by the South Jersey Transportation Planning Organization and the numbers for the other two counties are forecasted by Wilmington Metropolitan Area Planning Commission (WILMAPCO).

**TABLE V - 1  
POPULATION AND EMPLOYMENT FORECAST FOR THE  
DELAWARE VALLEY REGION (000)S**

County	Population		1990-2025 Change		Employment		1990-2025 Change	
	1990	2025	Diff.	% Diff.	1990	2025	Diff.	% Diff.
Burlington	395	513	118	29.9	191	251	60	31.4
Camden	503	514	11	2.2	228	264	36	15.8
Gloucester	230	323	93	40.4	86	123	37	43.0
Mercer	326	391	65	19.9	221	270	49	22.2
Salem	65	81	16	24.6	24	81	57	237.5
<b>NJ Total</b>	<b>1519</b>	<b>1822</b>	<b>303</b>	<b>19.9</b>	<b>750</b>	<b>989</b>	<b>239</b>	<b>31.9</b>
			0				0	
Bucks	541	748	207	38.3	245	338	93	38.0
Chester	376	547	171	45.5	198	289	91	46.0
Delaware	548	540	-8	-1.5	230	270	40	17.4
Montgomery	678	835	157	23.2	458	568	110	24.0
Philadelphia	1645	1500	-145	-8.8	837	840	3	0.4
<b>PA Total</b>	<b>3788</b>	<b>4170</b>	<b>382</b>	<b>10.1</b>	<b>1968</b>	<b>2305</b>	<b>337</b>	<b>17.1</b>
			0				0	
New Castle	483	541	58	12.0	272	324	52	19.1
Cecil	78	104	26	33.3	27	35	8	29.6
<b>Wilmapco Total</b>	<b>561</b>	<b>645</b>	<b>84</b>	<b>15.0</b>	<b>299</b>	<b>359</b>	<b>60</b>	<b>20.1</b>
<b>Region Total</b>	<b>5868</b>	<b>6637</b>	<b>769</b>	<b>13.1</b>	<b>3017</b>	<b>3653</b>	<b>636</b>	<b>21.1</b>

The WILMAPCO counties are expected to grow by 15 percent in population and 10.1 percent in employment within the same time frame.

## 2. DEVELOPMENT OF 2025 OPERATIONS AND BASED AIRCRAFT

In this section, all available and relevant forecasts and the most current aircraft operations and based aircraft are obtained and compared as described below.

### a. DVRPC Current Counts, Master Plans, Draft TAF and DVRPC Forecasts

Table V-2 shows two forecasts and current tower and DVRPC counts. The individual airports generally project more optimistic

operations increases in their Master or Airport Layout Plans than the Terminal Area Forecast (TAF) and the RASP forecasts. PHL has projected approximately 800,000 aircraft operations by the year 2020. Staff contacted the majority of the current RASP airports to inquire about Master Plan or Airport Layout Plan forecasts. Most of the airports contacted suggested not to use their forecasts since the results are too old and do not reflect the current situation. DVRPC reviewed the available forecasts for all airports in Pennsylvania, New Jersey, WILMAPCO, including military and heliports before the development of 2025 operations.

The TAF draft forecasts show a total of 626,300 commercial operations for PHL, Trenton-Mercer and New Castle airports. The State Systems Plans (SASP) are not shown in

**TABLE V - 2  
CURRENT OPERATIONS AND BASED AIRCRAFT COUNTS  
AND FAA AND MASTER PLAN FORECASTS**

Airports	Current Tower & DVRPC Counts		2020 Individual Airport Forecasts		2015 Draft TAF Forecast	
	Operations	Based Aircraft	Operations	Based Aircraft	Operations	Based Aircraft
<b>Commercial Subtotal</b>	<b>445172</b>		<b>800000</b>		<b>626300</b>	
<b>General Aviation/Reliever PA Subtotal</b>	<b>519226</b>	<b>1293</b>	<b>n/a</b>	<b>n/a</b>	<b>849680</b>	<b>1244</b>
<b>NJ Subtotal</b>	<b>365156</b>	<b>692</b>	<b>n/a</b>	<b>n/a</b>	<b>465075</b>	<b>731</b>
<b>Wilmapco Subtotal</b>	<b>170814</b>	<b>431</b>	<b>n/a</b>	<b>n/a</b>	<b>164827</b>	<b>437</b>
<b>Military</b>	<b>126957</b>	<b>153</b>	<b>n/a</b>	<b>n/a</b>	<b>n/a</b>	<b>n/a</b>
<b>Heliports</b>	<b>10066</b>	<b>13</b>	<b>n/a</b>	<b>n/a</b>	<b>n/a</b>	<b>n/a</b>
<b>Grand Total</b>	<b>1637391</b>	<b>2582</b>	<b>n/a</b>	<b>n/a</b>	<b>2105882</b>	<b>2412</b>

this analysis since both NJ and PA are in the process of updating their respective SASPs. Delaware recently updated its SASP.

The RASP's general/business aviation current data are collected and maintained through DVRPC's aircraft counting program. This program, now in its fourteenth year, monitors aircraft operations at each RASP facility every three to four years, and provides a better baseline for accurate operations forecasting. Based aircraft totals are also collected and maintained by DVRPC. Most numbers are derived from field observations at the airports and discussions with the appropriate airport personnel. Based aircraft data is collected simultaneously with the aircraft counting program. Additional inquiries are made for special studies or requests as necessary.

Current operations and based aircraft totals are 519,226 and 1,293 for Pennsylvania, 365,156 and 692 for New Jersey and 170,814 and 431 for WILMAPCO, respectively. Military operations account for 126,957 operations and 153 base aircraft, and heliport operations add 10,066 operations and 13 based aircraft for a regional total of 1,637,391 annual operations and 2,582 based aircraft. The individual airport forecasts for the general aviation airports, military bases and heliports are not projected since a few Master Plans or similar document exist, or the documents are outdated. The 2015 TAF draft forecasts 849,680 operations and 1,244 based aircraft for Pennsylvania, 465,075 operations and 731 based aircraft for New Jersey and 164,827 operations and 437 based aircraft for WILMAPCO, for a regional total of 2,105,882

operations and 2,412 based aircraft.

Table V-3 shows the trend in data of aircraft operations and based aircraft counts between 1995 and 1999. The 1995 operations and based aircraft totals were used for the 2020 forecast. The 1999, most current operations and based aircraft figures are used as a baseline for the 2025 RASP forecast.

This Table indicates a decrease in operations during the past five years. However, there are some airports (Brandywine, Doylestown and Chester County) that have operations and/or based aircraft increases during the same period. Some airports experienced significant decreases in both operations and based aircraft due to unexpected circumstances (Pottstown Municipal, Spitfire Aerodrome, Flying W).

The commercial operations include total tower counts for take offs and landings at Philadelphia International Airport, Trenton-Mercer Airport and New Castle County Airports. In the last five years, commercial operations have increased by 26.6 percent (from 351,600 to 445,172). The main contributor to this growth was PHL, and New Castle and Trenton-Mercer show relatively stable levels of commercial activities over the same time period. Trenton-Mercer has lost the commercial service provided by Eastwind Airlines, their prime commercial carrier, two years ago. However, the airport picked up Shuttle America, which provides 15 daily departures, the most commercial departures in the airport's history. New Castle County Airport ended their commercial service through Shuttle America and has shifted its emphasis more toward the corporate and

business aviation market. PHL was the fastest growing major airport in the nation in 1999, and has the majority of commercial operations in the region with 429,554.

To develop the 2025 RASP operations and based aircraft, DVRPC staff reviewed the existing forecasts, trends in operations counts, and growth in the newly adopted population and employment forecasts. The TAF and individual airport forecasts, as described in Table V-2, also were taken into consideration. In Pennsylvania, the increase in operations is forecasted at 86,774, a 16.7 percent over the current state total of 519,226 operations (Table V-4). The based aircraft fleet is expected to increase by 19.5 percent, or 252 more aircraft to 1,857 in Pennsylvania by 2025. DVRPC projects 428,000 operations and 845 based aircraft for New Jersey and 204,500 operations and 520 based aircraft for the airports in the WILMAPCO area. The military operations and based aircraft are expected to decrease to 103,000 operations and 120 based aircraft, respectively. The military forecasts are based on interviews of military personnel, who project a significant decline in operation levels over the next 25 years. Heliport operations will increase to 14,600 operations and 19 aircraft at four RASP heliports. The 2025 RASP forecast totals 1,941,100 operations and 3,044 aircraft, a 18.5 percent and 18.1 percent increase in operation and based aircraft, respectively.

The individual RASP airport operations and based aircraft forecasts were undertaken considering past and anticipated future development, and ownership situation of



**TABLE V - 3  
PAST AND CURRENT ANNUAL OPERATIONS AND BASED  
AIRCRAFT BY AIRPORT TYPE**

Type of Operation	1995 Operations	Current Operations	Current-1995		1995 Based Aircraft	Current Based Aircraft	Current-1995	
			Diff.	% Diff.			Diff.	% Diff.
<b>Commercial</b>								
Philadelphia Int.	345000	429257	84257	24.4	n/a	n/a	n/a	n/a
Trenton-Mercer	4000	5431	1431	35.8	n/a	n/a	n/a	n/a
New Castle Co.	2600	10484	7884	303.2	n/a	n/a	n/a	n/a
<b>Commercial Subtotal</b>	<b>351600</b>	<b>445172</b>	<b>93572</b>	<b>26.6</b>	<b>n/a</b>	<b>n/a</b>	<b>n/a</b>	<b>n/a</b>
<b>Non-Com.</b>								
Brandywine	35495	41254	5759	16.2	79	105	26	32.9
Chester Co.	36680	45996	9316	25.4	153	137	-16	-10.5
Doylestown	41272	51974	10702	25.9	128	148	20	15.6
New Garden	34801	30025	-4776	-13.7	98	132	34	34.7
Northeast Philadelphia	109364	122944	13580	12.4	218	245	27	12.4
Pennridge	29700	18518	-11182	0.0	55	40	-15	0.0
Perkiomen Valley	40412	22682	-17730	-43.9	95	107	12	12.6
Philadelphia Int.	70000	51019	-18981	-27.1	50	50	0	0.0
Pottstown-Limerick	40275	44209	3934	9.8	70	75	5	7.1
Pottstown-Municipal	35591	9929	-25662	-72.1	56	20	-36	-64.3
Quakertown	41747	24874	-16873	-40.4	72	72	0	0.0
Vansant	12000	20672	8672	72.3	35	57	22	62.9
Wings	34336	35130	794	2.3	94	105	11	11.7
<b>PA Subtotal</b>	<b>561673</b>	<b>519226</b>	<b>-42447</b>	<b>-7.6</b>	<b>1203</b>	<b>1293</b>	<b>90</b>	<b>7.5</b>
Camden Co.	20328	16143	-4185	-20.6	30	49	19	63.3
Cross Keys	40363	37540	-2823	-7.0	75	59	-16	-21.3
Flying W	55020	39361	-15659	-28.5	105	61	-44	-41.9
Oldmans	13843	3990	-9853	-71.2	38	16	-22	-57.9
Red Lion	15187	15373	186	1.2	70	63	-7	-10.0
South Jersey Regional	58159	59466	1307	2.2	186	207	21	11.3
Trenton-Mercer	144401	149058	4657	3.2	158	158	0	0.0
Treton-Robbinsville	72833	44225	-28608	-39.3	45	79	34	75.6
<b>NJ Subtotal</b>	<b>420134</b>	<b>365156</b>	<b>-54978</b>	<b>-13.1</b>	<b>707</b>	<b>692</b>	<b>-15</b>	<b>-2.1</b>
Cecil Co.	5523	5662	139	2.5	30	30	0	0.0
New Castle	154186	124500	-29686	-19.3	253	301	48	19.0
Summit	65297	40652	-24645	-37.7	100	100	0	0.0
<b>Wilmapco Subtotal</b>	<b>225006</b>	<b>170814</b>	<b>-54192</b>	<b>-24.1</b>	<b>383</b>	<b>431</b>	<b>48</b>	<b>12.5</b>
<b>Military</b>								
McGuire AFB	81431	93378	11947	14.7	92	70	-22	-23.9
NAS Willow Grove	59838	33579	-26259	-43.9	202	83	-119	-58.9
<b>Military Subtotal</b>	<b>141269</b>	<b>126957</b>	<b>-14312</b>	<b>-10.1</b>	<b>294</b>	<b>153</b>	<b>-141</b>	<b>-48.0</b>
<b>Heliports</b>								
Heliports Subtotal	3200	10066	6866	214.6	15	13	-2	-13.3
<b>Grand Total</b>	<b>1702882</b>	<b>1637391</b>	<b>-69157</b>	<b>-4.1</b>	<b>2602</b>	<b>2582</b>	<b>-18</b>	<b>-0.7</b>

each of the RASP facilities. The results for each airport are also shown in Table V-4.

### **b. Commercial and Business Aviation Forecasts**

Commercial and business traffic are expected to grow at a much faster rate than GA traffic. Current airside capacity, without expansion investment, is only 560,000 operations per year. The FAA projects a growth at Philadelphia International Airport at 2.5 percent per year. The latest PHL published forecasts suggest an even steeper increase in operations, 3 percent per year, which would result in approximately 800,000 operations by 2020. The fast growing regional jet (RJ) fleet would sharply influence the shape of the region's airport system. The FAA anticipates a 13.4 percent increase per year in the RJ fleet through 2011. Existing airports with adequate runway length are expected to draw some business and general aviation traffic from PHL. These facilities include Chester County, Wilmington, Trenton Mercer, and Northeast Philadelphia airports.

With the large landside capacity development and expansion at Philadelphia International Airport currently under construction (new International 1, and Commuter F terminals), PHL was named the fastest growing airport in the nation in 1999. This growth brings the Delaware Valley Region face to face with another challenge, how to cope with the anticipated future demand in commercial aviation. The RJ traffic in Philadelphia currently does not utilize the capacity of runway 8-26. The majority of today's RJ fleet needs a minimum runway length of 6000 feet for takeoff. Originally 8-26 was designed to

relieve the two major runways 9-27R and L from the heavy use of what then were exclusively turboprop commuter aircraft (40% of total PHL operations at the time). Such aircraft are able to use 5000 feet long runways. Today, not all of the originally anticipated relief for the main runways is achieved through the use of 8-26 without PRM. That leaves the airport with no excess peak period capacity, causing delays. Trenton-Mercer and Wilmington in close proximity to PHL are in geographic position to help alleviate the congestion. Trenton-Mercer is actively pursuing the construction of a new terminal building to attract more commercial business, possibly service from one of the more established low cost commercial airlines like Southwest. New Castle County Airport, with terminal and parking facilities can also provide commercial capacity in the southern part of the region. This airport expects to increase its commercial operations by 7,000 annual takeoffs and landings by 2025 from nothing today. These numbers do not include earlier commercial operations from Shuttle America (1999), which are reflected in Table V-4. However, both New Castle and Trenton Mercer will remain predominantly business airports, not commercial, in the future.

### **c. General Aviation Airports**

The smaller GA/business airports of the RASP fulfill a variety of functions. They build a base system for the general aviation and small business aviation community, serve as centers for pilot training, reduce the regional congestion, provide important public services ( Angel Flight, emergency medical and police, etc.) and secure remaining open space in areas of urban sprawl. Table V-3 indicates an

**TABLE V - 4  
CURRENT AND FUTURE OPERATIONS AND BASED  
AIRCRAFT BY AIRPORT TYPE**

Airports	Current Operations Counts		2025 RASP Forecasts		Change in Operations 2025 - Current		Change in Based Aircraft 2025 - Current	
	Operations	Based Aircraft	Operations	Based Aircraft	Diff.	% Diff.	Diff.	% Diff.
<b>Commercial</b>								
Philadelphia International	429257	n/a	570000	n/a	140446	32.7	n/a	n/a
New Castle	10484	n/a	7000	n/a	-3484	-33.2	n/a	n/a
Trenton Mercer	5431	n/a	8000	n/a	2569	47.3	n/a	n/a
<b>Commercial Subtotal</b>	<b>445172</b>	<b>0</b>	<b>585000</b>	<b>0</b>	<b>139531</b>	<b>31.3</b>	<b>0</b>	<b>0</b>
<b>General Aviation/Reliever</b>								
Brandywine	41254	105	45000	130	3746	9.1	25	23.8
Chester County	45996	137	56000	160	10004	21.7	23	16.8
Doylestown	51974	148	60000	170	8026	15.4	22	14.9
New Garden	30025	132	35000	140	4975	16.6	8	6.1
Northeast	122944	245	136000	300	13056	10.6	55	22.4
Pennridge	18518	40	33000	75	14482	78.2	35	87.5
Perkiomen Valley	22682	107	25000	100	2318	10.2	-7	-6.5
Philadelphia International	51019	50	45000	50	-6019	-11.8	0	0.0
Pottstown-Limerick	44209	75	55000	100	10791	24.4	25	33.3
Pottstown-Municipal	9929	20	18000	40	8071	81.3	20	100.0
Quakertown	24874	72	30000	85	5126	20.6	13	18.1
Van Sant	20672	57	23000	65	2328	11.3	8	14.0
Wings	35130	105	45000	130	9870	28.1	25	23.8
<b>PA Subtotal</b>	<b>519226</b>	<b>1293</b>	<b>606000</b>	<b>1545</b>	<b>86774</b>	<b>16.7</b>	<b>252</b>	<b>19.5</b>
Camden County	16143	49	22000	60	5857	36.3	11	22.4
Cross Keys	37540	59	44000	65	6460	17.2	6	10.2
Flying W	39361	61	49000	100	9639	24.5	39	63.9
Spitfire Aerodrome	3990	16	23000	40	19010	476.4	24	150.0
Red Lion	15373	63	18000	65	2627	17.1	2	3.2
South Jersey Regional	59466	207	67000	215	7534	12.7	8	3.9
Trenton Mercer	149058	158	156000	200	6942	4.7	42	26.6
Trenton Robbinsville	44225	79	49000	100	4775	10.8	21	26.6
<b>NJ Subtotal</b>	<b>365156</b>	<b>692</b>	<b>428000</b>	<b>845</b>	<b>62844</b>	<b>17.2</b>	<b>153</b>	<b>22.1</b>
Cecil County	5662	30	25000	70	19338	341.5	40	133.3
New Castle	124500	301	138000	345	13500	10.8	44	14.6
Summit	40652	100	41500	105	848	2.1	5	5.0
<b>Wimapco Subtotal</b>	<b>170814</b>	<b>431</b>	<b>204500</b>	<b>520</b>	<b>33686</b>	<b>19.7</b>	<b>89</b>	<b>20.6</b>
<b>Military</b>								
McGuire AFB	93378	70	75000	50	-18378	-19.7	-20	-28.6
NAS Willow Grove	33579	83	28000	70	-5579	-16.6	-13	-15.7
<b>Military Subtotal</b>	<b>126957</b>	<b>153</b>	<b>103000</b>	<b>120</b>	<b>-23957</b>	<b>-36.3</b>	<b>-33</b>	<b>-44.2</b>
<b>Heliports</b>								
Heliports Subtotal	10066	13	14600	19	4534	45.0	6	46.2
<b>Grand Total</b>	<b>1637391</b>	<b>2582</b>	<b>1941100</b>	<b>3049</b>	<b>303412</b>	<b>18.5</b>	<b>467</b>	<b>18.1</b>

unexpected (7.6, 13.1, and 24.1 percent) decrease in GA operations levels, in Pennsylvania, New Jersey and WILMAPCO counties, respectively. Each RASP airport was evaluated concerning historical issues and aviation trends, population and employment forecasts, and future development potential in order to estimate its future operations and based aircraft and its contribution to a functioning regional airport system.

The 30 minute travel time criteria to define a market area around an airport is the planning standard of FAA, and travel times have not significantly changed from the findings of the 2020 RASP. The closures of Cecil County Airport was compensated for by the new Cecil County Airport located just south of Elkton. The closure of Buehl Field and the impact on its market area will be sufficiently covered by Trenton-Mercer and Northeast Philadelphia Airport. Other than these sites, the region continues to have adequate coverage of airports to fulfill future demand as long as the airports are preserved, sufficiently equipped, and improved where necessary.

#### **d. Forecast of other aviation activities**

Although the emphasis of this plan deals primarily with fixed wing civilian operations and based aircraft projections as a means of defining facility needs, the 2025 RASP also examines other activity forecasts that affect system demand and require facility modifications supplemental to traditional GA/business aviation traffic. These include military traffic and heliports activity which are briefly discussed below and included in Tables V-2 through V-4.

Future demand at Willow Grove and McGuire military bases is expected to decrease in operations from the current level 127,000 to 103,000 by 2025 and from 153 to 120 based aircraft during the same time period. The newest current operations figures do not include overflights. McGuire AFB reached top operations levels of 93,378 takeoffs and landings in 1999. This is due to the high level of special missions (Kosovo refugee mission) which are not anticipated in the future. Also, the closure of the private Aero Club by the end of this year, will reduce the daily activity by 9.5 takeoffs and landings per day. The C141 aircraft is retired and the remaining 18 based aircraft are not expected to be replaced over the next 25. In addition, Warminster Naval Air Development Center in Lower Bucks County closed and the runway decommissioned in the mid 1990. Although only 4,000-5,000 annual operations took place there, the region lost the potential for future military or civilian activity.

Of the four listed RASP heliports, some growth is expected at for Penn's Landing and Horsham. The two remaining heliports are anticipated to have negligible activity. Penn's Landing appears to be the most active facility with 6,800 current annual operations. Horsham with currently 1700 operations per year is expected to remain at this level or grow rather moderately over the next 25 years. Valley Forge Heliport is privately owned and mainly used by its owner, generating approximately 120 to 150 operations per year. Keystone Heliport is a 100 percent maintenance oriented facility. The current estimated 1,400 operations are also not expected to increase or decrease by

any significant number. Regionally as shown in Table V-4, a total increase of 4,534 operations, from 10,066 currently to 14,600 and an increase of 6 aircraft, from 13 to 19, are expected for the year 2025.any significant number. Regionally as shown in Table V-4, a total increase of 4,534 operations, from 10,066 currently to 14,600 and an increase of 6 aircraft, from 13 to 19, are expected for the year 2025.





## VI. SYSTEM DEFICIENCY ANALYSIS AND ALTERNATIVE SOLUTIONS

The previous chapters have described the status of the 12 county DVRPC RASP system, and projected aviation demand levels based on regional demographics and trends in the aviation industry. More specifically, commercial aviation is growing at a record and consistent rate, increasing the expectation of delays and scheduling inefficiencies for passengers. This trend points to the need for more capacity in the region serving commercial airlines. General aviation demand is decreasing and business activity is increasing and is projected to continue at a moderate rate. Facilities serving non-commercial aviation are predominately located in the suburbs, provide sufficient operating capacity for projected traffic, but facilities are irregular in that some suburbs have no capacity to handle corporate twin or jets while other airports do. Although most existing suburban market areas are currently served by non-commercial public use airports, high private ownership, and the potential for sale for non-aviation development creates potential gaps in service coverage in the future. Using the RASP plan objectives established earlier in the report, the following categories of regional system deficiencies have been defined. Existing system components will be examined with regard to deficiency categories using quantitative and qualitative measures of deficiency to identify needed improvements in light of existing conditions and projected demand.

### 1. MARKET AREA COVERAGE

a. Ground travel time to the regions three commercial airports, Philadelphia International, Trenton-Mercer and New Castle County is one hour or less from all population centers in the region. Travel times have remained relatively constant since 1995, so that access criteria are satisfied with current and 2025 RASP facilities locations.

b. GA/business airports, able to accommodate business twins and small jets (i.e., King Air, Citation.), with ground access within one half hour from all business/ population centers have been impacted by two airport closures during the last five years, Buehl in Middletown Township, Bucks County and Cecil County in Elkton, Maryland. Without those airports, market areas in Lower Bucks and Cecil County are impacted. In Cecil County, the former Raintree Airport approximately eight miles southwest of the old Cecil County Airport site is expanding with private and state funds. The 2,700 foot runway, taxiway and apron areas have been paved. Hangars for aircraft storage are being built and the owner is initiating master planning to lead to Maryland State funding and possible FAA grants. This airport serves the same market area as the old Cecil County facility and has a positive aggressive, expansion oriented ownership and fewer potential land use conflicts than Cecil. Regarding the Buehl Airport closure, the

ground access defined for the market areas of Trenton Mercer, PNE and Doylestown provide adequate options for aviation users in eastern Bucks County. Given adequate coverage and the previously identified density of development in the area along I-95, no new replacement airport is contemplated for Buehl.

c. Guarantee of continued facility operation within critical market area is an issue which must be addressed in the 2025 RASP. Since 1980, 35 percent of all public use non-commercial airports in the tri-county region have closed, all of which were privately owned. Of the remaining 20 public use airports in the current RASP, where 85% of all regional based aircraft are based, 15 airports or 75 percent are privately owned. Several airports in the RASP which provide the sole aviation system access in their market areas are not legally committed to continued operations. These include; Wings in Montgomery County, New Garden in Chester County, Raintree in Cecil County, Cross Keys in Gloucester County and Spitfire Aerodrome in Salem County. Options to lock these facilities into continued regional service include acquisition or capital grant subsidies subject to the concurrence of the owner. Without action on these airports, vast portions of the region, predominately the less populated areas of southwest New Jersey, Cecil County and Southern Chester County could be without GA/business aviation in the future.

## **2. COMMERCIAL CAPACITY**

Traditionally, in the years before and since airline service deregulation by the federal government in 1978, Philadelphia

International Airport has provided most of the scheduled airline service in the DVRPC region. Periodically, modest flight service has sprung up at New Castle County, Northeast Philadelphia and Trenton Mercer and then been curtailed. Currently only Trenton-Mercer, other than PHL, has any scheduled airline service. Before deregulation, flight schedules and thereby airspace utilization were managed by the federal government. Flights were spread out more evenly through the day to make optimal use of airport and airway capacity. At the time, total national flights per year were less than half of today's number. However, deregulation had two predominant impacts on aviation demand. The cost went down resulting in drastically increased numbers of passengers booking more flights. Also, airlines started scheduling flights, 1) to satisfy the time of the day when passengers wished to fly and 2) to satisfy connecting and feeder flights composing the airline and its partners hub and spoke systems. The cumulative effect at PHL and other commercial airports is the congregation of demand for flight operations at the peak morning and evening rush periods, where runways and airspace are oversubscribed while during midday and night hours airport capacity is not completely utilized. This trend has been exacerbated by the globalization of aviation service. For example, European bound flights from PHL depart in the evening to arrive at their destination for the start of the business day.

Through the 1980's and early 1990's, PHL did not experience severe delay even with the hub and spoke system, since the airport remained underutilized. As late as 1995 PHL,



ranked only 23rd of commercial airports in passenger volume even though it served the 6th largest urban area in the country. PHL's market was being drawn to Newark and JF Kennedy for international traffic and to BWI for discount flight options. However, expanded commitment by US Airways such as the construction of a new overseas and commuter terminals is the precursor of expanded demand and increased flights, and in 1998-99 PHL became the fastest growing major airport from a traffic perspective, in the country. Currently, delays occur during rush periods and any bad weather results in further schedule delays and cancellations.

More capacity on the ground side, as well as airspace capacity must be achieved. The recent PHL master plan update started in 1999 was designed to look "outside the box" to find more airside capacity. Technology enhancements such as Precision Runway Monitoring (PRM) and advanced Global Position Systems (GPS) will provide some capacity increase, but not enough to satisfy a 33 percent operations increase by 2025. Additional commercial operations at Trenton Mercer and New Castle County, centrally located in the north and south of the region, respectively, where excess operating capacity is available on existing runway-taxiway systems, could reduce commercial flight delays in the future.

Additional commercial use of Trenton Mercer and New Castle is being studied. Trenton Mercer is currently completing a master plan and environmental assessment which will determine the feasibility of terminal and car parking expansion necessary for increasing

commercial flights. At New Castle County airport management has concentrated on expansion of facilities and services to corporate aviation since 1995. However, terminal and car parking improvements would permit commercial service at that airport. Both Trenton and NCC have the runway-taxiway-tower facilities in place to accommodate regional commercial service, as well as available operating capacity which is currently underutilized at both airports. It now appears that the most significant constraint to additional commercial service at airports in the region other than PHL is nearby neighbor opposition. At Trenton-Mercer strong, well organized opposition to any expansion by neighbors, who feel potentially impacted by noise, have formalized political lobbies to oppose expansion. However, other nearby residents who are potential users of service at the airport are indicating support for more commercial flight options which can reduce cost of air travel. New Castle County has yet to study commercial expansion.

### **3. NON COMMERCIAL CAPACITY**

Currently, only select suburban market areas of the region have airports that accommodate corporate twin and small jet aircraft under most weather and load conditions. These airport areas include Chester County airport 5,400 feet, Northeast Philadelphia 7,000 feet runway, and Summit in New Castle County with 4,500 feet. Other airports around the region have runway extensions identified in the 1995 RASP 2020, and are in various stages of development through the master planning process. These airports have demonstrated some level of corporate market

demand and are used by larger aircraft when load and weather conditions permit. Runway extensions at Wings, Pottstown Limerick, Pennridge, and South Jersey Regional would provide more flexibility for operations under more diverse conditions, while also increasing availability of capacity to encourage more corporate basing and reduce corporate demand at PHL. In order to satisfy the RASP design criteria of a corporate quality runway (4,500 feet or more) within one half hour of business development centers in the suburbs, the airports identified above as well as Cross Keys should continue to pursue runway extensions. These airports will provide geographic coverage to the outer suburbs while supplementing the heavy corporate use of New Castle, Trenton-Mercer and Northeast Philadelphia.

Most general aviation/business airports in the region base a fleet mix of aircraft heavily weighted toward single engine aircraft. Some airports, including Chester County, Summit, Northeast Philadelphia, Trenton Mercer and New Castle County with longer runway and more sophisticated approach guidance, cater more to expensive corporate aircraft and maintain hangar capacity for corporate clients. For the single engine aircraft however most airports have a shortage of hangar space, waiting lists (Doylestown, Flying W, maintain a list of over 150 aircraft), and outside tie-downs as an alternative to moving to another airport. Shortage of hangar space can result in loss of tenants to less popular airports. Many airports cannot afford to acquire additional land out of the obstruction free zone to house more aircraft either at tie downs or hangars. Also, since hangar construction does not

qualify as eligible for capital assistance either from FAA or the states, private financing to build storage capacity must be arranged, which is an additional demand on operators. Since 1995, over 200 hangar spaces have been added at Brandywine, Raintree, Pottstown Limerick, Doylestown and others. However, with the current planning horizon of 2025 future, modest growth in based aircraft is projected to total 3,000 from today's 2,600, necessitating continued hangar construction.

#### **4. HELICOPTER CAPACITY**

Significant helicopter use has been demonstrated at Penns Landing Heliport serving center city Philadelphia and at Keystone Heliport in West Chester, where the operator provides FBO and after-market services as well as maintaining a fleet of EMS helicopters. Smaller suburban heliports, including Horsham Valley Heliport in Willow Grove, and the new Total RF Heliport in Bensalem, Bucks County, also provide regional helicopter capacity and services. Helicopter operations are routine at several of the RASP airports such as Wings, South Jersey Regional, Trenton Mercer, and others whose corporate personnel and clients are ferried between business destinations, and to PHL and other airports for commercial long haul flight connections. Helicopters at suburban airports generate specific and intense noise profiles which must be managed effectively to avoid neighbor opposition. The adopted RASP 2020 plan identified the need to new helicopter facilities to serve all urban centers in the DVRPC region. Short haul east coast trips, especially corporate, EMS police and news media flights

are generated in Center City areas. Short access time to ground destination and avoiding the processing and ground access time from more distant commercial airports, makes helicopter service attractive, efficient and economically feasible to a small segment of the short haul aviation market. Helicopters flying between central urban core cities and other cities or corporate destinations can operate below or around commercial approach or departure airspace and act as a reliever facility, diverting traffic who might otherwise use commercial airports. With the future advent of the Boeing 609 vertical take off and landing craft, Center City heliport facilities may have a larger role in serving Northeast corridor commuter traffic currently using commercial airlines and Amtrak. The 2025 RASP calls for new public use helicopter facilities to be developed in Wilmington and Trenton and for the Sterling Heliport at Penns Landing in Philadelphia to be expanded and the landing take off ramp to be extended. Given the quick taxi and water shuttle between Camden and Penns Landing, and the recommended public investment in the expansion of the Philadelphia side heliport, the 2025 RASP proposes to delete the 2020 RASP recommendation to develop a public use helicopter on the Camden side of the Delaware River.

## **5. AIRPORT PHYSICAL CONDITIONS**

Recent policy guidelines from FAA and the states Divisions of Aviation assign high priority to pavement maintenance and reconstruction investments. Airport pavement including runways, taxiway, aprons and ramp space constitute the major investment subcategory

within public sector aviation capital grant programs. Investing in pavement based on a systematic and strategic planning approach maximizes pavement life, reduces federal and state subsidies, and improves safety of operations. As part of its continuing Aviation System Planning Program (CASP), DVRPC completed a pavement management analysis and investment recommendations report for 13 non towered airports in the RASP. PHL, PNE, New Castle County and Trenton Mercer are required to maintain ongoing pavement analysis inventories as stated in the AIP sponsor commitments. The remaining seven general aviation airports in the DVRPC region, all in Pennsylvania, have subsequently been included in the PA Bureau of Aviations state wide pavement management study funded by FAA through the state system planning allocation. The same consultant, inventory process, computer analysis and evaluation criteria were used by NJDOT, PennDOT and DVRPC to ensure consistency of results. Pavements for all DVRPC regional airports have been ranked on a PCI (Pavement Condition index) scale of 0-100, where 0-40 indicates the need to reconstruct, 40-62 indicates major rehabilitation and 62-100 suggests preventative investments. Pavements were identified as averaging 15 years long and several have deteriorated to the point of requiring major rehabs of runway surfaces. Current analysis recommends \$10 million of payment investment in the next five years at non-towered airports just to raise PCI average values to optimal levels to prevent deterioration below preventative maintenance level.

In the 2025 RASP, pavement investment

strategies should be incorporated into airport improvement investment recommendations where runway projects are recommended for capacity, safety, or pavement conditions. Since pavement preventative investments are minor compared to reconstruction, system cost savings will dictate pavement investments at many RASP airports.

## 6. AIRSPACE ISSUES

In the environment of a high population, dense development urbanized region within the northeast corridor, airspace management becomes critical to safe and efficient operation of the airport system. Since 1995, Buehl and Warminster Naval Air Development Center runways have been decommissioned and the facilities closed. Air traffic conflicts identified in the 2020 RASP in Bucks County have been eased due to the closures.

Throughout the region, corporate and general aviation air traffic continues to be segregated from often delayed and increasing commercial traffic at PHL via the use of suburban reliever airports. Proposed runway extensions and storage enhancements in the suburbs are critical to the continued separation of commercial and non commercial traffic. Also preserving the operation of all recommended RASP airports allows operation demand to be spread optimally in the suburbs, therefore not burdening any one community with transfer demand from closed airports.

As recommended in the RASP 2020, installation of Global Positioning Systems (GPS) approaches and Remote Terminal Outlet (RTO) transmitters improve both the accuracy and options for airport approach guidance and communication from suburban

airports to Regional Air Traffic control (RTC) at PHL. These NAVAID type improvements must continue, along with the capacity expansion recommended in the 2025 RASP, for the region to continue to improve operational safety.

## 7. POLICY, LICENSING, AND PROGRAMMATIC DEFICIENCIES

Airports must deal with a complex network of local, county, state, regional and federal agencies to operate. Regional airports are licensed by the state DOT, for FAA, controlled by local zoning and building codes, funded through states, local authorities and the FAA, in contact with FAA ATC regarding airspace utilization, and interface with state environmental offices regarding development and environmental mitigation. Several aspects of programs and procedures designed to develop and regulate public use airports in this region are actually hindering such development or placing a disproportionately severe burden on some airports. Several process related deficiencies have been identified in the CASP process, or reported by sponsor airports. Specific complaints are:

**a)** Discriminatory funding competition process in Pennsylvania with block grant and state funds impacting Montgomery County, and potentially other select airports or local jurisdictions, with proposed legislation in New Jersey impacting airports statewide.

**b)** State zoning laws to protect part 77 surfaces which are not enforced by states or municipal governments.

- c) Licensing procedures which prevent or discourage change of ownership of airports, specifically in Pennsylvania.
- d) Federal and states funding eligibility criteria which are more harsh on regions with a high percentage of privately owned public use airports, like the DVRPC region.
- e) Lack of linkage between regionally identified deficiencies in the RASP and recommended state projects which are the outcome of the state grant distribution decision process.
- f) Proliferation of cell towers and other tall structures not controlled by zoning are impacting airports operating space, and aviation needs seem to have low priority compared to FCC objectives.

Many of these issues require corrective actions at Federal or state level and such actions may create opposition at the local level.





## VII. 2025 REGIONAL AIRPORT SYSTEM PLAN RECOMMENDATIONS

In previous chapters, the aviation system and infrastructure of the 2025 RASP have been described. Issues that relate to infrastructure, economic and marketplace policy, operating procedures, and legislation have been identified. Regional and state level forecasts of aviation activity, including airport operations and based aircraft, were developed using a wide range of forecast perspectives. The projections were then compared to the region's own aviation trend experience, and also matched against demographic projections of population and employment growth. Finally, these regional projections were assigned to individual airports in order to identify future infrastructure deficiencies and capital and policy recommendations to ensure a safe and economic aviation system that meets the 2025 demand.

The 2025 RASP shows a slight increase non-commercial activity across the region and a significant increase in commercial traffic, the latter predominantly at PHL (See Table V-4). These levels of growth, when considered on an annual basis over the next 25 years, reflect modest increases in most categories, except for commercial jet passenger demand. The reductions in operating cost and more efficient larger aircraft, as well as competitive pressure, will continue to hold ticket prices at affordable levels.

### 1. 2025 RASP OBJECTIVES AND ISSUES

The objectives for the recommended systemwide improvements generally can be stated as expanding passenger capacity at the major commercial airport in the region - PHL - while preserving locational options, and improving storage capacity and safety features for business and general aviation facilities. The latter are necessary for greater mobility and economic vitality in the region. Specifically, this plan addresses the following system wide deficiencies, while incorporating operators, governmental agencies and impacted citizens groups.

- ➔ Delays and shortage of commercial and freight operating capacity at PHL;
- ➔ Potential for loss of equitable operating location choices for business and personal aircraft in the suburbs;
- ➔ Insufficient hangar and ramp storage regionwide to accommodate the aviation demand needed to support economic growth in the suburbs;
- ➔ Lack of sufficient runway length to accommodate corporate aircraft at some suburban airports; and the
- ➔ Shortage of heliport capacity to serve regional commuter cities

- ➔ Deteriorating pavement conditions with no systematic approach to maintenance investments
- ➔ Major policy, legislative and programming deficiencies resulting in loss of airport development potential and closure of airport in Pennsylvania
- ➔ Need for Engagement of the DVRPC regional planning process with grant decisions at the states level.
- ➔ Need to Improve facilities to meet lower minima from GPS approaches
- ➔ Need to Address non-standard airport design conditions and the elimination of existing aeronautical hazards

## **2. RECOMMENDED 2025 RASP SYSTEM FACILITY COVERAGE**

Given the need for geographic diversity of airport locational options to satisfy ground access criteria, and the significant market area coverage of the 23 airports in the current RASP, the 2025 recommended RASP will include all current system facilities, except Buehl. The former Raintree airport, renamed Cecil County Airport in 2000, has been added to provide access for the old Cecil County airport market area. With the closure of Buehl in Middletown Township, it is determined that the overlapping market area coverages of PNE, Doylestown, Trenton Mercer and Robbinsville adequately cover the area served by Buehl. No other airport is recommended to replace this facility. Although a small area of land in eastern Montgomery county currently has travel times to either Doylestown, Wings, or Northeast

Philadelphia (PNE) in excess of the 30-minute criterion, no non-RASP airport or site is available to correct this deficiency. However, expansion of storage capacity at PNE and Doylestown, and storage and runway length extension at Wings, will increase their capacities to serve corporate aviation in the densely developed corridor, thereby making the slightly longer access time tolerable.

Three airports in Burlington County continue to serve a redundant market area. These airports are South Jersey Regional, Red Lion, and Flying W. All will be retained, since basing activity is significant at each and each appears to have a unique market niche. South Jersey Regional serves a growing business clientele needing a longer runway and more services, while Flying W handles a higher level of operations and training activities, and Red Lion serves single engine recreational flyers.

Regarding commercial service, PHL will remain the center of the region from a service and air traffic management point of view. The overwhelming number of commercial flights will continue to operate from PHL, however, the 2025 RASP recommends increased service at Trenton Mercer and New Castle with appropriate ground side capacity enhancements.

To address the criterion of providing dedicated heliport facilities at all high density business and government centers, the heliport portion of the 2025 RASP includes construction of two new heliports in Trenton and Wilmington. These will complement existing heliports in Philadelphia, West Chester, Ambler and Valley Forge.



### **3. 2025 RECOMMENDED RASP FACILITIES AND IMPROVEMENTS**

Table VII-1 shows the airports and heliports included in the 2025 RASP and the required major expansion and improvements to satisfy demand and service expectations in 2025.

The recommended improvements and costs for the 2025 RASP can be grouped in several major categories, as discussed below.

#### **a. Runway Extensions or Replacement**

Runway extensions provide a higher degree of safety for the operation of larger business oriented aircraft. Certain insurance restrictions require corporate aircraft and pilots to use runways of minimum length. These requirements attract corporate based aircraft to suburban airports, which is beneficial from an air traffic control perspective, as well as for economic development. This attraction is, to a large degree, related to the availability of runway length and accompanying precision approaches. At least corporate aircraft runway with precision approach capability is recommended for each of the urbanized counties of the region. Extensions at Wings, Pennridge, South Jersey Regional, Pottstown Limerick, and Cecil County, remain in varying stages of planning, with local commitment and federal/state capital support still indefinite. Summit is planning to replace its existing 4,500 foot runway with a parallel 5,500 foot runway and use the old runway as a taxiway. The extensions recommended, with the exception of Cross Keys, have been proposed and studied through the master plan and ALP processes which have identified available real

estate for the project.

#### **b. Hangar and T-Hangar Construction**

Storage space in hangars is a critical criterion for aircraft owners. Corporate twin-engine and jet aircraft must be stored in hangars because of their high cost. Hangar space at suburban airports varies, but is generally considered insufficient to satisfy present demand. Currently, certain airports cannot provide storage for their aircraft in hangars, other airports accommodate up to 90 percent of their based aircraft with hangar storage. Taking into consideration the projected growth of aircraft at regional airports, the 2025 RASP recommends increasing the number of hangars and/or T-hangars to accommodate at least 50 percent of assigned aircraft in hangars at all airports, within the limits of real estate space available. At airports with longer runways, existing or recommended, corporate hangar development is recommended, while at small general aviation airports T-hangar construction is encouraged. Only 50 percent of projected based aircraft in 2025 will be based in hangars under the proposed development recommendations.

If demand projections are optimistic, hangar investment would still be utilized by remaining aircraft, since currently only 35 percent of aircraft or less, regionally, are in hangars. If more airports in the 2025 RASP close, pressure will increase at remaining airports for hangar expansion beyond available space, and some aircraft will move out of the region.

#### **c. Airport Acquisitions**

Although 16 of the 24 airports identified as

**TABLE VII-1**  
**RASP RECOMMENDED CAPITAL IMPROVEMENTS BY FACILITY**

FACILITY	RECOMMENDED CAPITAL IMPROVEMENTS	COST (MILLIONS OF DOLLARS)
<b>Commercial Airports</b>		
Philadelphia	Master Planning, Pending Airside Capacity Enhancements, Possible Parallel Runway	(\$1-2 billion)
Trenton-Mercer	Terminal Improvements, Car Parking Aircraft Storage	20.0
New Castle County	Terminal Improvements, Car Parking Taxiway Improvements	40.0
	Subtotal	60.0
<b>Reliever Airports</b>		
Brandywine	20 Hangar Spaces, 30 T-Hangars, Land Acquisition to control obstructions	3.5
Chester County	Land Acquisition, MALSR 20 Hangar Spaces, 20 T-Hangars	7.5
Doylestown	Land Acquisition 26 Hangar Spaces, 20 T-Hangars, Ramp Addition	7.2
New Garden	Public Acquisition. 10 T-Hangars 25 Ramp Spaces	5.0
Northeast Philadelphia	10 Hangar Spaces, 16 T-Hangars	4.0
Pennridge (Regional Classification)	Runway Extension up to 5,000' 10 Hangar Spaces, 10 T-Hangars	3.0
Pottstown-Limerick	Runway Extension to 4,400', 30 Hangar Spaces	9.3
Wings	Runway Extension to 3,700' ramp Improvements 20 T-Hangars, Helicopter Apron, AWOS 10 Hangar Spaces	8.0
Cross Keys (Regional Classification)	Public Acquisition, Land Acquisition, Runway Extension, 20 Hangar Spaces, 40 T-Hangars	12.5
S. Jersey Regional	Runway Extension to 5,500' 30 Hangar Spaces, 30 T-Hangars	8.4
Trenton-Robbinsville	20 Hangar Spaces, 15 T-Hangars	2.1
Summit	New Runway 5,500', 18 Hangar Spaces, 40 T-Hangars	5.6
	Subtotal	76.1

FACILITY	RECOMMENDED CAPITAL IMPROVEMENTS	COST (MILLIONS OF DOLLARS)
<b>General Aviation Airports</b>		
Perkiomen Valley	20 T-Hangars, Runway Widening	1.8
Pottstown Municipal	20 T-Hangars, Expand Apron, Corporate Hangars	7.4
Quakertown	10 T-Hangars, 10 Ramp Spaces, Runway Extension to 3,800'	2.3
Van Sant	20 T-Hangars	0.6
Camden County	20 Hangar Spaces, 30 T-Hangars	2.5
Flying W	20 Hangar Spaces, 30 T-Hangars	2.5
Spitfire Aerodrome	Public Acquisition, 20 T-hangars, Runway, Terminal Taxiway Expansion	5.0
Red Lion	30 T-Hangars	0.9
Raintree	20 T-Hangars, Maintenance Hangar Corporate hangar, Terminal Building Parallel Taxiway, Runway Extension To 4,000'	5.6
	Subtotal	28.6
<b>Heliports</b>		
4 Existing Heliports	Ramp and Hangar Expansion	2.0
2 New Heliports	Land Acquisition Ramp and Hangar Construction	4.0
	Subtotal	6.0
<b>All Airports</b>		
	Pavement Maintenance, RTO Installation, Runway Safety Area Analysis, Obstruction Removal	50.0
	Subtotal	50.0
	Grand Total of All Airports Except PHL	\$220.7 Million
	PHL	\$1 - 2 Billion

part of the 2025 Plan are currently privately owned, only three are recommended for public acquisition. Five other privately owned airports - Wings, Brandywine, Summit, Pottstown-Limerick and South Jersey Regional - all classified as relievers, are receiving or are eligible for federal AIP funds for expansion and are assured of continuous operation through contractual assurances with FAA, or private investment commitment. The three airports recommended for public acquisition - New Garden, Cross Keys, and Spitfire - are facilities which, if lost to aviation, would result in large areas of the region not having access to business service airports in the respective suburban areas. Airport owners reluctance to accept federal or states capital grants in the past, with the lock-in of continued operations as a sponsor assurance, may create the need for acquisition. If airports accept available grants, acquisition is unnecessary. If Cross Keys and Spitfire closed, no paved public use runway would remain in Gloucester, Salem counties, respectively. Both Wings and Brandywine have been stabilized with private funding and now do not require public acquisition. However, since airport authorities currently exist in Bucks, Montgomery and Chester Counties, the potential for public acquisition of critical privately owned airports, specifically Wings, Pottstown Limerick and New Garden, should be preserved.

The remaining seven privately owned public use airports, although providing based aircraft capacity, are not as critical to regional business development. The location of these airports are either away from development densities or near publicly owned or reliever

airports capable of receiving based aircraft from other airports. They include Perkiomen Valley, Pottstown Municipal, Red Lion, Flying W, Vansant, Camden County, and Quakertown.

#### **d. Pavement Maintenance**

Complementary investments are recommended that will support preservation and use of the existing infrastructure through maintenance and expansion. Proper upkeep of the recommended facilities in the 2025 plan will require continuous capital expenditure. (See tables VII-2 and VII-3 for pavement condition and maintenance investment proposal summaries.)

#### **e. Commercial Airport Capacity Enhancement**

Commercial operating capacity at PHL is deficient now, and without intervention will result in major delays and service reductions in the future. Technological and other operating enhancements regarding air traffic flow at the airport may provide some additional peak period capacity. With the construction of terminals 1 and F, USAirways establishes PHL as its overseas hub, resulting in more afternoon rush hour flights. The desire of its merger partner United to establish a more competitive presence in the northeast and to Europe will increase PHL potential role as a international hub. More flights must be scheduled in the less congested mid-day periods to make use of the excess airside capacity available then. The PHL just completed runway 8-26, and as mentioned above, the soon to be completed overseas and commuter terminals will add

**TABLE VII-2  
PAVEMENT CONDITION SUMMARY BY AIRPORT**

<b>AIRPORT</b>	<b>AREA WEIGHTED (AGE 9YEARS)</b>	<b>PCI ENTIRE NETWORK</b>	<b>RUNWAYS</b>	<b>TAXIWAYS</b>	<b>APRONS</b>
Camden County	16	74	65	96	53
Cross Keys	14	78	80	79	59
Chester County	15	86	89	81	88
(Oldmans) Spitfire	19	57	58	69	18
Flying W	22	86	94	89	80
Pottstown Municipal	18	65	66	70	50
New Garden	18	76	71	76	90
Wings Field	17	58	49	48	81
Red Lion	12	95	93	99	94
Trenton - Robbinsville	12	83	92	86	67
Doylestown	14	78	79	72	84
Brandywine	12	86	76	92	92
Trenton - Mercer	11	78	87	69	71
South Jersey	12	84	74	76	94

**TABLE VII - 3  
PAVEMENT PROPOSED EXPENDITURES BY AIRPORT (AS OF YEAR 2000)**

Airport	2000 Expenditures ( \$ 1000's)			2001 Expenditures ( \$ 1000's)			2002 Expenditures ( \$ 1000's)			2003 Expenditures ( \$ 1000's)			2004 Expenditures ( \$ 1000's)		
	Rehab.	Maint.	Seal	Rehab.	Maint.	Seal	Rehab.	Maint.	Seal	Rehab.	Maint.	Seal	Rehab.	Maint.	Seal
Cross Keys	39.2	6.5	0.0	0.0	0.0	0.0	0.0	12.6	0.0	0.0	1.1	0.0	0.0	13.6	0.0
Camden Co.	258.2	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.1	0.6
Chester Co.	310.2	19.5	75.8	0.0	0.0	0.0	0.0	47.1	0.0	0.0	0.0	0.0	0.0	51.0	63.7
Spitfire	400.2	1.8	0.0	0.0	0.0	0.0	0.0	1.8	0.0	0.0	0.0	2.3	0.0	2.0	0.0
Flying W	34.7	13.8	63.8	0.0	0.0	0.0	0.0	58.6	0.0	0.0	0.0	0.0	0.0	63.6	5.8
Pottstown-Mun.	139.6	11.8	6.2	248.2	0.0	0.0	0.0	25.1	0.0	0.0	0.0	0.0	0.0	27.2	0.0
New Garden	74.0	12.7	13.1	7.1	0.0	0.0	0.0	10.3	0.0	0.0	0.0	8.8	0.0	13.1	11.4
Wings Field	552.8	5.2	25.5	0.0	0.0	0.0	0.0	8.6	0.0	0.0	0.0	0.0	0.0	3.0	9.1
Red Lion	0.0	0.9	0.0	0.0	0.0	0.0	0.0	4.9	0.0	1.2	0.0	0.0	0.0	5.3	0.0
Trenton-Robb.	313.7	125.2	0.0	0.0	0.0	0.0	0.0	12.0	0.0	0.0	0.0	0.0	0.0	12.9	0.0
Doylestown	257.2	9.4	0.0	0.0	0.0	0.0	0.0	43.3	0.0	0.0	0.0	0.0	12.9	44.4	0.0
Brandywine	78.3	4.3	1.2	0.0	0.0	19.6	7.5	7.0	0.0	0.0	0.0	5.0	0.0	7.5	0.0
Trenton- Mercer	1434.6	56.2	0.0	24.9	0.0	0.0	476.5	64.5	0.0	0.0	176.4	0.0	117.6	67.8	0.0
South Jersey Reg.	105.8	29.0	11.3	0.0	0.0	16.5	146.5	17.3	42.5	3.7	0.0	0.0	18.0	13.2	37.1

some operating capacity and significant landside passenger capacity. New highway ramps and additional car parking is being provided. The continuing operating capacity deficiency is being addressed through the airside master plan update currently underway. The outcome of this study may recommend significant investments in new simultaneous parallel runways and other capacity increasing investments. The other smaller commercial service airports, New Castle and Trenton-Mercer, both have sufficient operating capacity based on runway and taxiway configuration. Since most of the flights using these airports will be business/GA, deficiencies in airspace capacity, and storage capacity in hangars and on-ramps should be addressed. Based on available real estate for storage, existing storage facilities, and anticipated 2025 demand, additional storage space is assigned to these airports. Since all are towered with precision approach capacity, no improvement other than modernization is required for ATC and approach equipment hardware. However, the increases in commercial flights will require landside capacity improvements such as car parking areas and terminals/gates.

#### **4. RELIEVER AND GENERAL AVIATION AIRPORTS**

Several reliever airports have been recommended for public acquisition in order to ensure continued operation in the system. These are Cross Keys in Gloucester County, New Garden in Chester County, and Spitfire in Salem County. All other counties either have strong publicly owned business airports, or

privately owned relievers receiving federal grant contracts or with significant private funding by aviation users. Runway extensions are recommended for several of these business airports, including Wings, Summit, Pottstown-Limerick, Penridge, South Jersey Regional, and Cross Keys, so that each county can provide corporate level runway access for business and economic development purposes. Meeting airport design standards is mandatory in establishing capital development needs.

Current hangar and tie-down capacity was compared with expected 2025 based aircraft demand. A target of 50 percent of all based aircraft in hangars by 2025 was recommended including both corporate and T-hangars, depending on aircraft type. Acquisition adjacent to airports was inventoried, the number of hangars and ramp space needed was determined, the necessary land acquisitions to accommodate 2025 based aircraft were established. Needed hangars, ramp space, and real estate were identified for each airport.

Like reliever or business airports, the most significant deficiency for general aviation facilities is storage space, mostly in T-hangars, since most corporate aircraft will be based at the reliever airports with longer runways. A similar target of 50 percent of aircraft in hangars was used to determine the needed number of new hangars and paved tie downs at each GA airport.

#### **5. HELIPORTS**

Deficiencies in the heliport system focus on the lack of discrete heliport facilities at the

urban centers of Trenton, and Wilmington, as well as the lack of sufficient ramp space and hangars. Privately developed heliport capacity appears adequate in the Pennsylvania portion of the region, but public agency involvement is necessary in the other urban centers. Since the level of regional based helicopters is only on the order of 40, including heliports based at airports, storage demand is not high at heliports. Still more ramp and some hangar capacity expenditure are warranted, as well as real estate investment for the start-up of the two new facilities.





# VIII. IMPLEMENTATION OF 2025 RASP RECOMMENDATIONS

## 1. CAPITAL COSTS AND SUBSIDIES

Table VIII-1 summarizes the recommended improvements to the RASP facilities by type of improvement proposed at airports. The magnitude of cost, depending on master plan recommendations at PHL ranges between one and two billion dollars. Traditional federal and state funding sources, the AIP, PFC, state aviation development and safety funds, bond issues, state capital budgets and transportation trust funds, historically provide about \$30 million per year to the region. Over 25 years, assuming consistent funds availability, the region may expect \$500 to \$750 million in capital subsidies. Not all projects will be developed and only some will receive public investment while others will rely on private/owner resources. Since the

adoption of the 2020 RASP, both NJ and PA have been designated block grant states by FAA, transferring the responsibility for state apportionment funding grant decisions, government grants to eligible GA and reliever airports, to the state FAA relieves the grant responsibility for entitlement airports and discretionary grants won through national competition. Since the adoption by Congress in 1999 of the Air-21 authorizing legislation, AIP levels have risen over 50 percent per year to approximately \$3.2 billion. Part of that increase is a \$150,000 non-primary entitlement to eligible airports. These funds are earmarked on an annual basis over the life of the authorization and are available assuming appropriate master planning, environmental assessments and airport layout plans have been completed.

**TABLE VIII - 1  
2025 RASP CAPITAL COST BY IMPROVEMENT CATEGORY**

<b>TYPE OF IMPROVEMENTS (MILLIONS OF DOLLARS)</b>	<b>COST</b>
PHL Airside Capacity	(\$1-2 billion)
Other Commercial Airports Landside Expansion	60.0
6 Runway Extensions or Rebuilt, Suburbs	36.6
5 Adjacent Land Acquisitions, Suburbs	15.7
200 Corporate Hangar Spaces, Systemwide	18.9
350 T-Hangars, Systemwide	10.0
100 Aircraft Ramp Spaces	1.0
3 Airport Acquisitions, Private to Public	22.5
Systemwide Preventive Maintenance, Safety Area, Obstruction Work	50.0
4 Heliport Improvements	2.0
2 New Heliports	4.0
<b>TOTAL</b>	<b>\$219.7 million</b>
<b>PHL</b>	<b>\$1.0-\$2.0 billion</b>

## 2. ELIGIBILITY AND PRIORITY

FAA and states funding eligibility criteria require airports to be publicly owned or classified reliever, if privately owned, to receive federal AIP or state block grants. Projects eligible at airports generally include capacity and safety improvements like runway/taxiway/ramp building, expansion and repair. Public acquisition and land acquisition around eligible airports are also potentially fundable, if competitively selected. Hangar development, which generates income for the facility are terminal area improvements, and generally not publicly eligible for funding. Sponsors must use private financing for these land side improvements.

AIP entitlement funds for PHL, Trenton Mercer and New Castle are available annually on a formula basis in proportion to enplanements. PFC funds are collected and spent as needed with FAA oversight. Discretionary, block grant, and state funds are generally dispersed annually through funding competitions in Washington, Trenton and Harrisburg. Many eligible projects at NPIAS airports around the country are not funded since available grants only go to the highest priority ranked projects. Within the projects summarized in Table VII-2 airside and landside capacity improvements at commercial airports must be first priority, since the largest segment of the regional population using aviation is impacted.

Second priority is runway extensions at reliever airports where demonstrated business demand can be satisfied thereby reducing traffic demand at PHL and increase their

usable commercial capacity. Reliever airports with business length runways divert air traffic demand to the suburbs so congestion and delay can be minimized in the region and country. Certain actions by FAA to increase the based aircraft and operations levels for relievers eligibility in the AIP have resulted in loss of reliever classification for Pennridge and Cross Keys. DVRPC does not agree with these changes and feels the criteria change penalized regions with a high number of privately owned public use airports. Both Pennridge and Cross Keys are critical to the current or future business activity of their counties and have been retained as relievers in the 2025 RASP.

Third priority is assigned to preserving endangered reliever/GA airports uniquely serving suburban market areas since suburban business development and mobility can be inhibited without corporate access to the aviation system. Forth priority is acquisition of surrounding land for storage capacity, runway safety area protection, and obstruction control, and encroachment prevention, at reliever classification airports. Without sufficient capacity these suburban airports cannot relieve PHL.

Finally, numerous complementary investments in support systems such as pavement maintenance, obstruction removal, ATC improvements via GPS and RTO's must occur in a parallel sequence with high priority investments, so that new or improved facilities can be incorporated into the system with a maximum of safety and project usability.

Storage improvements at general aviation

airports require private investment, and are critical to retaining and increasing the aviation activity in the region. Without these improvements, based aircraft and operations traffic will be assimilated by other reliever and publicly owned GA airports to the limit of their storage capacity. More planes at fewer airports means more noise, fear from neighbors and restrictions to operation and expansion. Some aircraft and aviation activity may relocate outside the region if more privately owned airports close. In general, the states and FAA are not financially capable of subsidizing most non-reliever private owned airports in the region.

RASP capital recommendations are only significant if incorporated and acted upon by the states and FAA in their annual grants programs. As discussed in the following section, DVRPC and FAA are proposing that the RASP recommendations be integrated into states funding programs, either through DVRPC prioritization of regional projects with a regional allocation level provided as regional portion of the states grants program, or by some obligation of the states to allow regional discretion on regional aviation projects.

### **3. REGULATORY AND PROGRAMMING STRATEGIES**

In the Delaware Valley, several examples exist of state and federal actions, or non-actions which have actually exasperated airports expansion or enhancement for safety as well as capacity objectives. These projects have been identified in regional and master planning studies funded by FAA but not implemented. These problems almost

paralyze general aviation and business operations and capacity expansion in the region and decrease the future adequacy of the national aviation system. Intervention from legislative and administrative levels should occur to reverse the trend, realizing that certain infrastructure systems serve multiple jurisdictions across state, county municipal and national boundaries. The following strategies are designed to address the legislative, programming, and funding problems identified in the 2025 RASP.

#### **a. Regional-States Capital Programming Linkage**

Since both New Jersey and Pennsylvania are now block grant states, project grant decisions at non-commercial airports rests with their aviation divisions. A better system should be developed to integrate regional capital project priorities into state grant selections on an annual basis. First, schedules of project application review should be highly coordinated so that regional recommendations can be considered in the appropriate sequence. The states grant application procedures should be amended to require airports within the DVRPC planning region to apply for state or federal airport funds through the regional agency. DVRPC should assist airports in scheduling and executing master plans including detailed environmental assessments which frequently hold up grant decisions due to the lengthy nature of these planning prerequisites. Ideally, a portion of the state and federal development funds should be allocated to the region on the basis of total operations or based aircraft at GA/reliever airports in proportion to the states totals. This allocation

will then be distributed to eligible airports and projects through a DVRPC process corresponding to regional priority needs. If a regional sub-allocation is not politically possible, documentation of regional grants received per year in total should be considered by the DVRPC Board to determine adequacy of the regional share of public aviation development funds. Through the capital programming process, grants recommended by that Board to the state aviation departments will provide a direct linkage between regional planning and state planning/grant distribution and provide the basis for any future funding negotiation, either regarding project selection or regional share of statewide development resources.

#### **b. Enforcement of Part 77 Airport Zoning Controls at the Municipal Level**

Both New Jersey and Pennsylvania have laws requiring municipalities to protect operating airspace around airport from intrusion by buildings, trees, etc. The Pennsylvania law defines these protected airspaces exactly as they are identified in the Federal Aviation Regulation Part 77. New Jersey's legislatively protected areas are smaller thereby offering less protection. The New Jersey legislation should be amended to extend the safety area definitions to the part 77 levels, and both states laws should be modified to trigger penalties to local jurisdictions for non-compliance if a hazard is identified through an airspace study and not mitigated. State law requiring deed restriction/notification of buyer regarding the properties proximity to airports of specified operating characteristics should be enacted to reduce local sentiment against airports. DVRPC should continue to work

with states and local governments to implement ordinances where called for by legislation.

#### **c. Licensing and Relicensing Procedures and Funding**

The Pennsylvania state guidelines should be reformed regarding sale of privately owned public use airports. Requiring all waived conditions to be corrected to FAA design standards puts an unreasonable burden on buyers and sellers. Since these airports have operated safely for many years in most cases with waived conditions, only those features which affect safety hazard should be corrected, and these project costs should be eligible for state funding and classified as high priority using state and regional selection criteria.

The FAA and States should; with DVRPC participation:

- Acknowledge and adhere to regional development recommendations, and give priority to waiver-correcting projects at private airports which are successfully changing ownership and preserving the aviation capacity of the existing facilities.
- Give priority to safety and capacity projects at privately owned airports which have significant private investment. These facilities are providing public capacity to the states and regional systems without relying on public funds for the majority of capital improvement costs. Federal non-eligibility of some potentially active privately owned airports, like Cross Keys and Pennridge should be reversed.

- ➔ Give priority to projects at reliever airports serving business/GA demand in metropolitan regions. These airports help spread traffic away from commercial airports and airspace which are already congested. Reduce the recently increased FAA criteria, which limits the number of relievers nationally. Since not all regions are similar in airport ownership (public or private) and commercial congestion situation, reliever status and AIP block grant eligibility should be determined by RASP/SASP criteria, not FAA national criteria.
- ➔ Distribute funds regionally in proportion to aviation activity over multiyear periods. Reserve geographically earmarked funds dedicated on a needs/activity basis until the airport/local jurisdiction can spend the allocation within federal lapsing limits.
- ➔ Keep state aviation legislation fair and equitable to all types of airports. The state of Pennsylvania should not stop or delay any airports by restricting funding or development, and thus compromise safety and create traffic congestion. FAA, as the source of block grants funds to NJ and Pennsylvania and the distributor of discretionary grants in the DVRPC regional portion in Delaware, New Jersey and Pennsylvania, should restrict allocations in the future to states, or modify the Memos of Understanding (MOU's) which establish the guidelines for state spending of apportionment funds, when federal funds are distributed through an allocation system which does not give equal access to all airports, such as the overturned Montgomery County specific,

PA State Law.

- ➔ DVRPC should use the forum of the SASP Updates, Pennsylvania Aviation Advisory Committee, New Jersey Aviation Association to bring regional issues to the State program level in order to benefit from dialogue, perspective and organization resources of these state-wide groups in resolving regional aviation issues or perceived deficiencies.





# APPENDIX





RESOLUTIONEstablishment of an Advisory Committee  
on Regional Airport Planning

- WHEREAS, on February 22, 1979, the Executive Director was authorized to prepare, execute and file an application to develop, with Wilmington Metropolitan Area Planning Coordinating Council (WILMAPCO) participation, a study design to identify within the context of the State airport system plans for Pennsylvania, New Jersey and Delaware which aspects, if any, need to be addressed in framing a regional airport system plan; and
- WHEREAS, the United States Department of Transportation, in requesting that DVRPC prepare a fixed-price type proposal for this study design, has evidenced that it looks favorably on funding this study design; and
- WHEREAS, establishment of an Advisory Committee on Regional Airport Planning is needed to provide technical advice, guidance, and monitoring of the regional airport study design, and this Committee should replace the Technical Advisory Committee on Airport Plans created in 1967 and inactive since 1971;
- NOW, THEREFORE, BE IT RESOLVED by the Board of the Delaware Valley Regional Planning Commission:
1. That the Technical Advisory Committee on Airport Plans, formed in November of 1967 and inactive since February of 1971, is hereby dissolved.
  2. That a Committee is hereby created, named the Advisory Committee on Regional Airport Planning, which Committee shall serve as an advisory unit to DVRPC, reporting through the Planning Coordinating Committee to the Board, on the progress, guidance and monitoring of the Regional Airport Study Design.
  3. That the following agencies be invited to designate representatives to serve on this Committee:

Federal Aviation Administration  
 Pennsylvania Department of Transportation  
 New Jersey Department of Transportation  
 Delaware Department of Transportation  
 U. S. Department of the Air Force  
 U. S. Department of the Navy  
 City of Philadelphia, Division of Aviation  
 Mercer County Improvement Authority  
 Greater Wilmington Airport  
 Privately owned general aviation airports (at least  
     one representative)  
 Penjerdel Corporation

Regional Citizens Advisory Committee on Transportation  
Air Transport Association  
Airline Pilots Association  
Aircraft Owners and Pilots Association

Pennsylvania local governments:

Bucks County  
Chester County  
Delaware County  
Montgomery County  
City of Chester  
City of Philadelphia

New Jersey local governments:

Burlington County  
Camden County  
Gloucester County  
Mercer County  
City of Camden  
City of Trenton

Delaware local governments in region served by Wilmington  
Metropolitan Area Planning Coordinating Council (WILMAPCO)  
(one representative selected by WILMAPCO)

4. That this Committee shall function until it accepts a final report on the Regional Airport Study Design unless its term is further extended by the Board.

Adopted by the Board of the Delaware  
Valley Regional Planning Commission  
this 28th day of June 1979.

**Horizons 2025 Public Meeting**  
**April 4, 2001**  
**Burlington Meeting House**

**LAND USE PLAN COMMENTS**

Q1. Centers concept is good, but a model legislation component is needed for implementation.

A1. Report #5 - Implementation Strategies will address implementation techniques. DVRPC is also currently looking at infrastructure concurrency, and several legislative efforts currently underway in Pennsylvania address incentives for urban reinvestment and an historic building tax credit.

Q2. The economic value of good planning should be calculated and shown in the plan.

A2. Bob Burchell of Rutgers calculated savings attributed to implementation of the NJ State Development and Redevelopment Plan, as well for the Delaware Estuary Region, which covers portions of Pennsylvania within the DVRPC region. It can be assumed that similar savings could be achieved with implementation of the DVRPC plan.

Q3. All Future Growth Areas on the plan are not associated with Centers. Can't there be more centers in Future Growth Areas?

A3. The plan recommends concentrating growth and designing developments based on principles of new urbanism to create places with unique identity. However, only places that are of county or regional significance in size are shown as Centers.

Q4. How is the DVRPC plan integrated into the NJSDRP?

A4. The concepts are very similar, but not identical. For example, the SDRP has tiers of development and the 2025 plan does not. However, the DVRPC plan is consistent with the SDRP with respect to identifying areas appropriate for growth.

Q5. Was water supply considered when we identified centers and Future Growth Areas?

A.5. Yes, this was integrated into the plan. Future development will be constrained by water supply.

Q6. Could we put the DVRPC plan in context with the surrounding region by showing adjacent area plans?

A6. Yes, that is a good idea.

**TRANSPORTATION PLAN COMMENTS**

Q1. The comment period is too short - why?

A1. We need to adopt the plan to comply with the Clean Air Act.

Q2. Could DVRPC study how projects could be more cost effective? Our region seems to spend too much money on construction projects compared to other regions and other countries. In

addition, the % of money spent for planning and engineering seems too high compared to total project costs - we need to get better results.

A2. That is a good idea.

Q3. How do projects go from concept to implementation? Why hasn't the Woodhaven Road extension been completed, the ROW was acquired over 30 years ago?

A3. Getting a project identified on the Transportation Plan is a necessary prerequisite to the TIP, however, it doesn't guarantee it will happen. Reaching consensus on projects and dealing with environmental constraints delay projects. Woodhaven Road extension was never completed because policies and priorities in transportation projects have changed over time, and the project did not have political support. Lower Moreland Township does not want it.

Q4. Why isn't there a project to connect the Betsy Ross Bridge and Rt. 309 as a east-west connection?

A4. Building new highways in developed areas is very difficult due to land constraints and other environmental constraints. This is also in opposition to current transportation planning principles.

Q5. Why is the connection between the Blue Route and the airport so insufficient? Why can't there be an on-ramp from Rt 320 to RT 476? Other suggestions: expand the highway on Route 1 in front of the Marple-Springfield Shopping Center to avoid conflicts between shoppers and those going south on Route 1; expand MacDade Blvd at Rt. 476 to 3 lanes; widen I-95 north at Rt. 476 to 3 lanes; revise I-95 and 476 to allow a new exit to Rt. 291, even if its limited use.

A5. Many things appearing to be bad designs are the results of compromises; if compromises were not reached, in many cases there would be no project at all. In addition, studies have proven that increasing capacity does not solve congestion.

Comment: Congestion on Rt 322 in Gloucester County has caused a war between Harrison and South Harrison Townships. Plans take the route south into S. Harrison, threatening an agricultural area with many preserved farms.

Q6. Can DVRPC attach quantifiable targets to the transportation policies so that we can measure our success?

A6. Yes, we have a regional indicators report designed to track progress in implementing the plan, although we did not set specific targets within the plan. An Indicators report was released fall of 2000, and another will come out in 2002.

Q7. Does PA still have emission requirements per vehicle?

A7. Yes

Q8. Are we paying for states' to our west lack of compliance?

A. Yes, so is Connecticut.

Q9. Do we have any control over emitters from outside our region?

A.9 Power plants getting cleaned-up in Ohio and Western PA will help our region's air quality.

## AIRPORT PLAN COMMENTS

Q1. We need better transportation access to airports, especially to the Trenton-Mercer county airport - the R3 is not too far away, could there be a connection? We need more airports to have more competition between airports, but the other airports also need better access to make them competitive.

A1. Better access with rail connections may be a good idea in general, but airports prefer people to drive to the airport because of the high parking revenues they receive.

Q2. What's going on with the Lumberton Airport?

A2. The South Jersey Regional Airport in Lumberton was classified as a "reliever" airport, which is eligible for FAA funds. Township officials wanted it reclassified, and wanted the Hammonton Airport to receive reliever status. FAA said no, it should maintain reliever status and funding eligibility. A runway expansion at the airport will result in an increase in air traffic and larger planes. Safety factors are taken into consideration with such improvements.

Q3. FAA should develop a plan to require more competition between airports. Local airports should take on commercial airlines and offer competition.

A3. Airlines drive the large airports and competition.

Q4. Can flight lines vary much?

A4. Not much, they are controlled by air traffic controllers, but FAA is redesigning air space to help problems, such as that of noise. This is confounded by the fact that the northeast corridor is the most densely populated air flight area in the country.

Comment:. Philadelphia Airport planners should be praised for the airports accessibility and performance.

Q5. When will FAA implement new plans for airspace?

A5. Probably in 2 years

Q6. When will Wilmington become a hub?

A6. It was taken over by Delaware Bay Authority. However, its an issue for the airlines - they will need to market Wilmington for that to happen.



**Horizons 2025 Public Meeting  
Valley Forge National Historical Park  
April 11, 2001**

**LAND USE PLAN COMMENTS**

Question: There seems to be no limit to the expansion in Chester and Montgomery counties. Nineteenth century development patterns in Philadelphia don't make sense now. What can be done about this?

Answer: Philadelphia is focusing on its neighborhoods (new Neighborhood Transformation initiative) and their relationship to Center City. Highways and transit facilities that support Center City are a priority for DVRPC and the goal of re-centralizing population and employment in the city. One positive note is that Philadelphia lost less population than was projected between 1990 and 2000.

Comment: The Great Valley area in Chester County is still growing, yet the plan does not identify it as a regional growth center.

Response: The 2025 land use plan does not depict the boundaries of each center. Great Valley is included within the King of Prussia/Valley Forge Metropolitan Sub Center. (Subsequent checking revealed that this response was incorrect. Staff will recommend to Chester County that a Regional Growth Center be added for Great Valley.)

Comment: The reality of planning at the township level is that you can't say no to development and you can't tell people to go to the city.

Response: New state planning code and financial incentives for multi-municipal cooperation provide ammunition for cooperative planning and the designation of growth areas. Multi-municipal planning can avoid the requirement that every municipality provide for every use in their zoning ordinance.

Comment: The plan (and zoning) should take into account the abundant sink holes in the region and the suitability of the land to accommodate development.

Response: DVRPC will obtain and examine the appropriate geological maps. It is certainly important to be aware of these conditions when designing and constructing buildings and infrastructure in these areas.

Comment: Local townships rely too much on Valley Forge National Historical Park as a preserve of open space. The park should only be viewed as a nucleus of open space; its primary use is as an historical park. Municipalities need to plan for their own open space resources.

## TRANSPORTATION PLAN COMMENTS

Question: Have you considered the impacts of cleaner hybrid engines in the air quality analysis of the plan?

Answer: Generally, the Commission is supportive of efforts to make vehicles cleaner. However, regional agencies are not in a position to require cleaner vehicles. The federal (and to a lesser degree, state) government assumes this responsibility. DVRPC does support fleet conversions to cleaner fuels through *Congestion Mitigation and Air Quality* grants.

Question: Railroads represent an excellent alternative for goods movement and passenger movement. What does the plan do to promote the viability of rail?

Answer: Philadelphia benefits from the presence of three Class I railroads, and we assume this competition will result in a larger proportion of freight being carried by rail. The Plan includes several specific projects to make rail more competitive with trucks. In future years, the concept of an agile port — now being studied — may result in shuttling more freight by rail between the port and an inland distribution terminal.

Question: New roads generate increased levels of traffic and noise that impact existing homes. Can a tenth point be added to the plan's transportation vision statement that addresses noise levels generated by these new roads?

Answer: Noise resulting from new facilities is addressed in the plan's second vision point: *All effects upon the environment will be considered*. DVRPC will review the discussion of this item to assure that the point is made clear. At the project level, the state department of transportation establishes noise-level standards and performs an environmental impact study will implement the vision statement.

Comment: I am concerned that not all comments made about the plan at the public meetings will be noted.

Response: DVRPC takes public comments about the plan very seriously. The extensive public outreach effort is intended to provide information about the plan and to provide the public with an opportunity to ask questions, make comments, and offer suggestions. A full and accurate summary of public comments will be transmitted to the DVRPC Board.

Comment: The public transportation segment of the 2025 Plan should emphasize sustaining the existing network of rail passenger lines and bus routes. Also, lacking in the present plan are the non-fixed plant needs such as vehicle replacements.

Response: To make the document easy to read and understand, the plan details only those transit and highway projects which lead to changes in transportation services and which exceed \$15 million in total cost. Thus, projects like vehicle replacements, while important, are not itemized.

Comment: In suburban areas, the interface between pedestrian facilities and public transit facilities



is often very poor. The transportation policies portion of the plan should include stronger language that promotes improved connections and safer facilities.

Response: DVRPC staff have also observed this disconnect. Staff will continue to examine what additional means can implement the plan policy to *maximize the use of non-motorized modes for non-recreational travel*.

### **AVIATION PLAN COMMENTS**

Comment: The preservation of Wings Field is very fortunate and is the result of the tenacity of its owners and congressional leaders. Federal and state aviation authorities must be more active in helping preserve local airports.

Question: Are joint civilian uses of Willow Grove and McGuire Air Bases being pursued?

Answer: The Willow Grove Naval Air Station (in Montgomery County, Pennsylvania) is opposed to allowing general aviation traffic. Following Desert Storm, McGuire Air Force Base (in Burlington County, New Jersey) assumed a heightened importance in terms of national defense.

Question: What are the projections for operations at Northeast Airport in Philadelphia?

Answer: Current annual operations are 123,000. Forecasted annual operations for the year 2025 are 136,000. The majority of these operations are business and general aviation related.



**2025 Horizons Plan  
Public Meeting  
April 16, 2001  
International House  
Philadelphia**

**Regional Land Use Plan Comments**

Q1. It seems that DVRPC has wonderful planning ideas, but limited ability to influence decisions making.

A1. The DVRPC Board has authority over federal transportation funding decisions in the region. This can have significant impacts on land use. To support the 2025 Plan's recommendations on recentralization, staff will be recommending that the Board consider designating a portion of the Transportation Improvement Program (TIP) for reinvestment in core areas.

Q2. What is total population increase projected?

A2. For the period from 1990 to 2025: 5.2 million to 5.9 million people; 2.7 million to 3.2 million jobs

Q3. What level of open space planning was conducted for Philadelphia? Did it incorporate brownfields?

A3. The proposed open space network is based on natural resources and greenway connections. Brownsfields were not incorporated, because in most cases their reuse has not yet been determined.

Q4. Is the DVRPC plan consistent with NJ State Development and Redevelopment Plan (NJSDRP)?

A4. Yes, the two plans are consistent, although not identical. For example, the NJSDRP has tiers of development and the 2025 plan does not. However, the DVRPC plan is consistent with the SDRP with respect to identifying areas appropriate for growth and a focus on centers to create more community character and identity.

Q5. What are the states' roles in planning?

A5 In NJ, there is a state plan that designates tiers of development density and intensity, and centers, and the state gives priority funding for places with state approved center designation. NJ is also supporting smart growth through "smart growth" grants.

In PA, last June, Acts 67 and 68 were passed to promote smart growth in the state. These amendments to the Municipalities Planning Code (MPC) encourage multi-municipal planning, the protection of rural resources, and redevelopment in older boroughs and suburbs. The Acts also require state agencies to incorporate local plans in decision making, and provide funding incentives for multi-municipal planning and implementation. There is also proposed legislation for urban reinvestment and tax credits for historic buildings.

Q6. The idea of setting aside funding to support infill development is interesting, as are the open space goals, but both the refill goal mentioned and the open space goals are ambitious. In addition, we have not yet reached consensus on what areas of the city or which first generation suburbs should grow and/or be revitalized, how much money should be designated for supporting “refill”, where the money should come from, and how it should be spent.

A6. These are all good points that staff is interested in pursuing through projects and discussions with the Board.

Q7. The problem with long range planning is that it is so difficult to tie together all the region’s priorities given the limited funding resources and political realities. However, its very important to develop a plan scenario that incorporates not only good land use planning, but funding and political constraints as well. Long range planning is like playing a game of chess, with the pieces constantly changing positions.

A7. If long-range planning is like a game of chess, then DVRPC is like the gameboard and the counties and municipalities are like the pieces. For the long-range regional plan, DVRPC develops and presents the vision, plan and strategy. However, planning in our region is done from the bottom-up, making it very difficult to implement regional plans and requiring an effective intergovernmental approach.

Q8. IT is no wonder that derelict properties in Philadelphia are not redeveloped because potential developers have to go to 13 different agencies for various approvals. The process is so cumbersome that many businesses won’t put up with the cost, delays and hassles and will just go elsewhere.

A8. There are many development and redevelopment constraints in our region. Another comes up when properties cross municipal boundaries, and the developer must get approvals from all jurisdictions.

Q9. Does DVRPC have a relationship with Wilmapco?

A9. Yes, we share information and attend certain meetings with each other, but do not sit on each others’ boards.

Q10. To what extent will a fuel crises affect the plan?

A10. The energy crises seems to be a hot issue every 20 or so years. Our plan is energy sensitive in that it promotes compact, transit oriented and pedestrian oriented development. However, only onerous energy taxes or much higher gas prices may actually impact people’s consumption of energy and therefore their behavior.

## **Transportation Plan**

Q1. What are the top new road projects in the Plan?

A1. - Intent to complete US202 in Bucks County from Montgomeryville to Doylestown  
- Construct an interchange between I95 and the PA Turnpike, and construct a new bridge across the Delaware River  
- Widen US202 in Delaware County  
- Widen NJ Turnpike from Exit 4 to the Delaware Memorial Bridge

## Widen PA Turnpike from Norristown to King of Prussia

Q2. Last Plan update was in February of 1998, now we are presenting another update. It is difficult to evaluate the effectiveness of the plan or the results achieved. How about evaluating this new plan? The “Regional Indicators” report that DVRPC produces every two years is one answer, but these indicators are based on other sources, and they are not necessarily related to the goals of the 2025 plan. DIRECTION 2020 had a “Policies” report that listed not only policies, but responsible agencies as well, and some measurable goals. But this was never evaluated. It is admittedly difficult, but DVRPC should evaluate what we have been able to achieve over the years and relay this to the public

A2. Periodic quantitative analysis is a good tool for the public and DVRPC.

Q3. Gas prices might go up a lot in 25 years, quite possibly to \$5 to \$10 per gallon in next 25 years. Mass transit is therefore going to grow in importance. Fare increases at SEPTA are a killer. Could DVRPC have a role in getting the legislature to move funds from capital improvements to the operating budget to avoid fare increases?

A3. We don't address that specifically. Bases on energy costs, the cost of mass transit or autos will consume the same proportion of peoples' incomes over the next 25 years

Q4. Septa should abandon the Schuylkill Valley Metro due to high cost and low cost to benefit ratios. Instead, spread funding to other projects rather than putting all funding in one basket.

A4. We'll include as testimony and our Board will decide.

### **Airport Plan**

Q1. The plan focuses on SEPA - do you look at the Lehigh Valley area, and chances for tradeoffs? Could more airport expansions be supported up there?

A1. The Airport Plan takes into account surrounding areas. For exmple, Hunderdon County has 2 airports, and we communicate with their representatives and invite them to meetings. We do encourage participation and communication beyond our borders, although there is always room to coordinate more.

Q2. Is PennDOT a means to coordinate more in PA, beyond the region we typically cover?

A2. Hopefully, both PennDOT and NJDOT will consider our recommendations in their state plans for Pa and NJ.

Q3. Is reopening the New London airport feasible? The owner died in an air crash, and the airport closed down, but the runway is still there.

A3. It's not on map, but we will discuss at future airport meetings.

Q4. Does aviation planning less correlated to demographic data than the other two plans?

A4. There is a correlation to demographic data in the airport plan. Our region's growth rate has slowed, and we'll take the latest numbers into account at our aviation meetings.



**DELAWARE VALLEY REGIONAL PLANNING COMMISSION**

**BOARD COMMITTEE**

**Minutes of Meeting of April 26, 2001**

Location: Commission Offices  
111 S. Independence Mall, East  
The Bourse Building, 8<sup>th</sup> Floor  
Philadelphia, PA 19106

Membership Present

Representative

New Jersey Department of Community Affairs	Joyce Paul
New Jersey Department of Transportation	William S. Beetle
Governor of New Jersey's Appointee	(not represented)
Governor of Pennsylvania's Appointee	Timothy J. Carson
Pennsylvania Governor's Policy Office	Bob Baker
Pennsylvania Department of Transportation	Dennis Lebo
Bucks County	Lynn Bush
Chester County	Colin A. Hanna William Fulton Charles Coyne
Delaware County	John E. Pickett
Montgomery County	Lewis F. Gould
Burlington County	Jerald R. Cureton Carol Ann Thomas
Camden County	J. Douglas Griffith
Gloucester County	(not represented)

Mercer County	Donna Lewis
City of Chester	(not represented)
City of Philadelphia	Lawrence Wilson
City of Camden	(not represented)
City of Trenton	(not represented)
<u>Non-Voting Members</u>	
Federal Highway Administration New Jersey Division Pennsylvania Division	Lawrence Cullari Spencer Stevens
U.S. Department of Housing and Urban Development, Region III	(not represented)
U.S. Environmental Protection Agency, Region III	(not represented)
U.S. Environmental Protection Agency, Region II	(not represented)
New Jersey Office of State Planning	Chuck Newcomb
Federal Transit Administration, Region III	(not represented)
Southeastern Pennsylvania Transportation Authority	Gerald Kane
New Jersey Transit Corporation	Kathy Vossough
Port Authority Transit Corporation	Thomas Hickey
Delaware River Port Authority	(not represented)
New Jersey Department of Environmental Protection	(not represented)
Pennsylvania Department of Environmental Protection	Michael Shea
Pennsylvania Department of Community and Economic Development	Charles Nahill, Jr.
Regional Citizens Committee Chairman	Patrick Starr



DVRPC Co-Counsel

Pennsylvania Co-Counsel  
New Jersey Co-Counsel

Kenneth Zielonis  
Thomas Coleman

DVRPC Staff: John J. Coscia, Barry Seymour, William Greene, Donald Shanis, Chick Dougherty, Rich Bickel, Roger Moog, Ron Roggenburk, Thomas McGovern, Mary Bell, Candace Snyder, and Jean McKinney.

Guests

Pennsylvania Department of Transportation

Robert Hannigan  
Greg Brown (Dist. 6-0)

New Jersey Department of Transportation

Jerry Mooney  
Al Prant

Federal Highway Administration - NJ Division

Keith Lynch

Federal Transit Administration

Janet Kampf

Delaware River Port Authority

Linda Hayes

Cross County Connection TMA

William Ragozine

10,000 Friends of Pennsylvania

Oliver Carley

Eddie R. Battle Associates

Eddie Battle

Call to Order

Chairman Timothy J. Carson called the meeting to order at 10:40 a.m.

Chairman Carson reported on his interest to attain more visibility for DVRPC. He, John J. Coscia, Executive Director and Colin A. Hanna, Chester County Commissioner, met with Charles Pizzi, Chamber of Commerce of Greater Philadelphia and Manny Stamatakis, Delaware River Port Authority, to discuss working together on Intelligent Transportation Systems (ITS). In addition, Mr. Carson and Mr. Coscia had a luncheon meeting with Sam Katz, Greater Philadelphia First and have also scheduled meetings with the elected officials in the nine county Delaware Valley region. Mr. Carson and Mr. Coscia will meet with the elected officials to discuss DVRPC's planning initiatives which support the continued growth and development in their counties.

## **Public Comments**

Comments from the public were invited to be heard on non-agenda items. No comments were stated.

### **1. Minutes of Meeting of March 22, 2001**

On a **motion** by Mr. Griffith, seconded by Mr. Wilson, the minutes of the meeting of March 22, 2001 were approved as distributed.

Colin A. Hanna, Chester County, inquired if the DVRPC staff had prepared the report requested by the Board on the TMA performance measures.

Donald Shanis, DVRPC staff, replied that staff is in the process of gathering information for this report and it is expected to be presented to the Board at their May meeting.

### **2. Authorization to Open Public Comment Period for the DVRPC Draft FY 2002-2004 Transportation Improvement Program (TIP) for the New Jersey portion of the Region**

Charles Dougherty, DVRPC staff, briefed the Board and explained that Federal law and planning regulations require the development of a Transportation Improvement Program (TIP) for the metropolitan region to become eligible for federal transportation funds. The creation of this document is to be done by the MPO in cooperation with the state and the transit operators, and must provide opportunity for input and comment by the public.

The development of the FY 2002-2004 TIP for the New Jersey portion of the region has been underway since November. The New Jersey Subcommittee of the RTC and DVRPC staff have been working in concert with NJDOT, NJ Transit, and DRPA on a draft TIP that meets the requirements of TEA21, including those for financial constraint.

Mr. Dougherty pointed out the *Draft FY 2002-2004 TIP New Jersey Highway Program Short Report - By County* (distributed to the Board) and highlighted some of the high priority projects listed in that report.

The Subcommittee expects to have the draft document available for public review by mid-May, with the public comment period open for 30 days through mid-June. This schedule will allow sufficient time for staff and the Subcommittee to review the public and agency comments, to compile a summary document for the RTC and RCC, and to assist the RTC with its recommendations to the Board for adoption of the final TIP at its July 2001 meeting.

After favorable recommendation was received from the Planning Coordinating Committee/Regional Transportation Committee (PCC/RTC) and the Regional Citizens Committee (RCC) the Board unanimously adopted the following **motion**:

**MOTION** by Mr. Beetle, seconded by Mr. Griffith; that the Board authorizes staff to open a 30-day public comment period with proper notification, to publish the draft TIP on the Internet, to make copies available at certain public libraries, and to hold public meetings in New Jersey and at DVRPC, for the purpose of gathering public comments on the draft FY 2002-2004 Transportation Improvement Program (TIP) for New Jersey.

### 3. DVRPC Transportation Improvement Program (TIP) Actions

Judy Barnet, DVRPC staff, briefed the Board on the following TIP Actions:

a. Action PA0121 - PennDOT Adjustment Package

Ms. Barnet explained that PennDOT has requested that DVRPC amend and/or modify the TIP to reflect adjustments in cost, schedule, and scope of six existing or former TIP projects and to add two new projects. The actions are summarized below.

Changes to Existing or Former TIP Projects:

- (1) US 202 Expressway, Section 721, (TIP #5356) - Bucks County  
Increase the cost of the previously obligated final design phase by \$2.8 million. The cost increase is due to changing and adding structures at sensitive environmental areas and an increase in the anticipated number of noise walls.
- (2) PA 309 Connector (TIP #8749) - Montgomery County  
Increase the cost of the preliminary engineering phase by \$146,000. Add a final design phase to FY03 at a total cost of \$2.360 million. The additional funds are needed for aerial photography and digital mapping that were not part of the original plans.
- (3) PA 926/Parkersville Rd. Intersection Improvement (old TIP #6913) - Chester County - Add the \$600,000 construction phase back to the TIP. This phase was not obligated in FY00 as expected.
- (4) PA 3, West Chester Pike Corridor Improvements (old TIP #7834) - Delaware County - Add the \$2.2 million construction phase back to the TIP. This phase was not obligated in FY00 as expected.

- (5) I-95 at PA 352 Ramp (TIP #7129) - Delaware County  
Increase the construction cost from \$4 million to \$5.6 million. Add a right-of-way phase at a cost of \$150,000. Add a utility relocation phase at a cost of \$2.75 million. These additional funds are needed for design modifications to accommodate the new CSX second track which increased the cost of the structure, changes resulting from the CSX acquisition of Conrail, railroad relocation.
- (6) McLean Station Rd. Bridge (old TIP #8725) - Montgomery County  
Add the \$800,000 construction phase back to the TIP. This phase was not obligated in FY00 as expected.

Proposed New Projects:

The following bridge improvements were originally programmed as maintenance projects with 100% state funding. However, the level of rehabilitation required for these structures exceeds earlier estimates and continued state-only funding would seriously impact the city's allocation of maintenance funds. Both projects are eligible for federal bridge funding.

- (7) Henry Ave. Bridge over Wissahickon Creek - New Project  
Add the design phase at a cost of \$200,000.
- (8) Henry Ave. Bridge over SEPTA R6 Line - New Project  
Add the design phase at a cost of \$300,000.

Financial constraint will be maintained through adjustments to other existing TIP projects whose schedules or costs have changed and there will be no impact on the conformity finding for this TIP action.

Favorable recommendation was received from the PCC/RTC.

The RCC also recommended approval of TIP Action PA0121 with the exception of US 202, Section 700 and restates the committee's continuing opposition to this project.

Lynn Bush, Bucks County, also commented on the Route 202, Section 700 project. Ms. Bush requested more information as to what the effect would be of adding structures to sensitive environmental areas. She also, was concerned with the appearance and location of the sound walls along that section of the corridor.

The Board unanimously adopted the following **motion**:

**MOTION** by Mr. Baker, seconded by Mr. Lebo; that the Board approve TIP Action PA0121, PennDOT's request to amend and/or modify the TIP to reflect adjustments in cost, schedule, and scope of six existing or former TIP projects and to add two new projects.

b. TIP Action PA0125 - Century Lane Bridge (City of Philadelphia)

Ms. Barnet explained that the City of Philadelphia has requested that DVRPC amend the TIP by adding a new project - the Century Lane Bridge Rehabilitation project. The project entails the rehabilitation of an existing bridge across the Poquessing Creek in far Northeast Philadelphia, crossing the Bucks County boundary into Bensalem Township. The structure is a stone arch bridge dating to the 1850's.

According to the City, an innovative strengthening process will allow them to internally reinforce the bridge without any visible external supports. This process will ensure that the structure will be preserved as is. The only feasible alternative would be a complete replacement since any other means of strengthening would involve supports, which would detract from the visual character of the bridge.

The City is proposing to program \$1.5 million for the construction phase only (\$1.2 million federal, \$300,000 City match.) The engineering will be completed in-house.

In order to maintain financial constraint, this project will be programmed as an advance construct project, meaning the City will provide the necessary funding in this fiscal year, with federal reimbursement occurring in FY02. Financial constraint will be maintained in FY02 using funds from the Cayuga St. Bridge Removal Project (TIP #9739) which is not expected to advance in that fiscal year. Also, there will be no impact on the conformity finding since this project is exempt from the regional air quality conformity analysis.

Favorable recommendation was received from the PCC/RTC and the RCC.

The Board unanimously adopted the following **motion**:

**MOTION** by Mr. Wilson, seconded by Mr. Hanna; that the Board approve TIP Action PA0125, the City of Philadelphia's request to add the construction phase of the Century Lane Bridge Rehabilitation project at a total cost of \$1.5 million.

#### 4. New Jersey FY 2001 Study and Development Program Amendment

Ms. Barnet briefed the Board and explained that the New Jersey Department of Transportation (NJDOT) has requested that DVRPC amend the FY 2001 Study and Development Program to add the concept development phase of the I-295/Rising Sun Road. Missing Moves Project in Bordentown Township, Burlington County.

Ms. Barnet continued to explain that Township residents and local officials have brought to the attention of NJDOT the increasing incidence of truck traffic on local and state highways on the way to the truck stops on Rising Sun Road adjacent to I-295. Their assertion is that the trucks are using these roads instead of I-295 because the partial interchange at I-295 and Rising Sun Road does not provide for movements to and from the north. They further believe that the trips are significantly regional in nature as the truck stops are full featured and marketed to long range rather than local trucking.

Due to this situation and the area's ongoing residential development, the Commissioner has directed that a concept development study be initiated to examine the regional truck needs, the local transportation needs, and the need for the missing moves at the interchange.

The project will be undertaken with state funds and will not affect other project schedules. This project already appears in the FY 2002 Study and Development pool.

Favorable recommendation was received from the PCC/RTC and the RCC. The RCC also requests that the study include a complete analysis of future traffic patterns, particularly those of trucks, and land use impacts. In addition, the committee asks that it be apprized of the results of the study as early as possible.

The Board unanimously adopted the following **motion**:

**MOTION** by Mr. Gould, seconded by Mr. Beetle; that the Board approve an amendment to the FY2001 Study and Development Program to add the concept development phase of the I-295/Rising Sun Road Missing Moves Project.

## 5. Adoption of the Year 2025 Land Use and Transportation Plan

Barry Seymour, DVRPC staff, explained that Preliminary Land Use (Report #3), Transportation (Report #4), and Regional Airport System plans have been published and widely circulated in the past six weeks. During that period, public meetings were held in Burlington, New Jersey (April 4), Valley Forge, Pennsylvania (April 11) and Philadelphia (April 16). The plans were also presented to the DVRPC Regional Transportation Committee, Regional Citizens Committee, Land Use and Development Committee, Goods Movement Task Force, and the Regional Aviation Committee. A public review period was open for thirty days. Oral and written comments were received at the public meetings and additional written comments were received at DVRPC's offices.

The Clean Air Act Amendments of 1990 (CAAA) require that transportation plans and programs conform to the applicable State Implementation Plans for air quality, and follow the Final Conformity Rule provided by USEPA and DOT. Funding of projects in ozone nonattainment areas, such as the DVRPC region, is dependent upon the Plan (and the Transportation Improvement Program) being found to conform to the purposes of the Implementation Plans and the CAAA.

DVRPC's conformity analysis of the Year 2025 Transportation Plan utilized newly-adopted population and employment forecasts and projects described in the Plan to determine that emissions of volatile organic compounds and oxides of nitrogen will be less than the permitted budgets, in each required analysis year, and furthermore, will contribute to the achievement and maintenance of national ambient air quality standards.

Ron Roggenburk, DVRPC staff, gave a more detailed presentation of the *Summary of Public Comments* (distributed to the Board) summarizing several significant changes for highway improvements or studies which can be readily incorporated into the Transportation Plan as follows:

- (1) Change *Project Status* of Route 41 Improvements from to *Clearly Defined Conceptual* (London Grove Township, Chester County)
- (2) Change the land use type from *growing suburbs* to rural for Route 41 improvements.
- (3) Add *Agile Port* to the list of Studies.
- (4) Add Track Restoration of Southern Secondary from Woodmansie to Winslow Junction to the list of studies.
- (5) Add an analysis of capacity to the study of the Delair Bridge.

- (6) Change name of *Riverlink* to *Penns Landing Water Taxi Service*.
- (7) Shift the implementation period of the *elimination of stairs* on the Benjamin Franklin Bridge to 2006-2013.
- (8) Add a study of relocating PA Route 23 out of Valley Forge national Park.
- (9) Add a widening, to six lanes, of PA 309 (Bethlehem Pike) from Stump Road to the Fort Washington Expressway, a distance of 2.1 miles.

Other comments, for which an explicit response was not made, typically concerned public transportation improvements. These recommended revisions will require discussion with county planners and transit operators.

Mr. Roggenburk then moved on to discuss the 2025 Regional Aviation System Plan. He commented on the three most important public concerns of this plan as being: (1) Trenton-Mercer Airport expansion; (2) Shortage of commercial capacity at Philadelphia International Airport; and (3) increase in runway length at South Jersey Regional Airport.

Finally, Mr. Roggenburk commented on the recommended changes to the preliminary 2025 Land Use Plan Map in Report #3.

Mr. Coscia commented that any major revisions to the Plan will be prepared over the next several months for deliberation by the Board committees. Major changes will be presented to the Board for action as amendments to the Plan.

DVRPC plans to combine the highlights of Reports #3 and #4, into a single document (Report #5) entitled: *Executive Summary*. Together with an implementation strategy and any revisions, this document will be the subject of additional reviews and public meetings in the Fall of 2001. Amendment of the adopted Plan, if necessary, will occur at the December Board Retreat.

Discussion ensued and Ms. Bush questioned why the adoption of the Plan was not listed on the original Board agenda which was mailed on April 17, 2001.

Mr. Coscia replied that the Plan adoption was originally scheduled for the May Board meeting, however, because of indications by the federal agencies that DVRPC might fall into a conformity lapse, it was deemed appropriate to adopt the plan at the April Board meeting. Adoption of the Plan at this time would ensure that the projects ready to advance in the TIP would not be delayed.

Ms. Bush stated that the 2025 Land Use map for Bucks County received in April has been sent to all the municipalities in Bucks County with a questionnaire and



that responses are still being received from the municipalities. Therefore, she is not agreeable to a favorable vote at this time.

Ms. Bush also noted that the concerns of Bucks County citizens with reference to the expansion of the Trenton-Mercer Airport would also prevent a favorable vote for the Airport element of the Plan until further information is received and reviewed.

Mr. Coscia responded that discussions with the counties and the Board committees will continue over the next few months. Recommendations will be evaluated and, if necessary, revisions will be brought before the board for action as Amendments to the Plan.

Mr. Coscia continued to say that staff is recommending the Aviation element of the Plan and that the Trenton-Mercer Airport expansion is required as a reliever airport. However, the concerns of the Bucks County citizens are understood.

Patrick Starr, RCC Chair, asked for a clarification as to the time frame for the completion of final plan document including any amendments. He also stated that the RCC committee continues to discuss recommendations to the Plan for consideration.

Mr. Coscia responded that Report #5 entitled *Executive Summary*, will be published which will combine Reports #3 and #4 and contain an Implementation Section and any amendments. This document will be subject to additional reviews and public meetings in the Fall of 2001 and amendment of the adopted plan, if necessary, will occur at the December Board Retreat.

A question was raised about how the amendment process works.

Mr. Coscia responded that a plan amendment procedure adopted by the Board states that an amendment can be made at any time. The amendment would go out for a 30-day public hearing period and then be forwarded to the Board for adoption.

After discussion, the following **motion** was made:

**MOTION** by Mr. Hanna, seconded by Mr. Lebo; that the Board approve the Year 2025 Land Use and Transportation Plan which includes plan elements for highways, mass transit, bicycle and pedestrian modes, freight and aviation, by passing Resolution No. B-FY01-010.

The motion carried with one opposing vote from Bucks County.

6. **Appointment of Nominating Committee for Fiscal Year 2002 DVRPC Board Officers**

Chairman Carson announced the names of the Nominating Committee which will select a slate of DVRPC Board Officers for Fiscal Year 2002 as follows:

Timothy J. Carson, Pennsylvania Governor's Appointee, Chairman  
Jerrold D. Colton, New Jersey Governor's Appointee  
Colin A. Hanna, Chester County  
Jerald Cureton, Burlington County  
Larry M. King, Pennsylvania Department of Transportation  
William Beetle, New Jersey Department of Transportation  
Larry Wilson, City of Philadelphia

The Chairman for the next fiscal year must be from New Jersey. The committee nominations are to be reported at the regular May meeting with the election to take place at the regular June meeting.

7. **Regional Citizens Committee (RCC) Report**

Patrick Staff, RCC Chair, called the Board's attention to the *Resolution on the Preliminary Year 2025 Plan* attached to the Recommendations to the Board for April 26, 2001 (distributed to the Board). Several specific recommendations are listed in the Resolution, however, as a whole, the RCC feels that there needs to be more emphasis on minimizing sprawl and that additional efforts should be made for public transportation improvements.

Mr. Starr also reported that the RCC is considering conducting workshops to present and discuss topics of interest to the RCC. One topic the RCC believes would be of interest to both Pennsylvania and New Jersey members would be *Traffic Calming*. He encouraged Board support for these workshops.

8. **Executive Director's Report**

a. **Central New Jersey Forum Meeting of April 19, 2001**

Mr. Coscia reported on a specific presentation made at the meeting of the Central New Jersey Forum. This presentation involved gathering information to help solve the congestion problems of the US Route 1 corridor through Princeton and a workshop was conducted at the meeting to develop different scenarios. To this end, New Jersey Transit staff collected input from the counties and the municipalities and developed transit oriented maps; one showing existing bus routes and proposed extensions, and one showing

proposed light rail lines. This work will be modeled to analyze the impact to congestion along the corridor.

b. PennDOT FY 2001 Program Report (October 1, 2000 through March 31, 2001)

Mr. Coscia reported that in the first six months of FY 2001, PennDOT has completed work on about 37% of the projects for the metropolitan region.

c. Ernst & Young DVRPC Financial Statements and Single Audit Report

The Ernst & Young DVRPC Financial Statements and Single Audit Report was distributed to the Board for their review.

d. Project Implementation for PennDOT District 6-0

The Quarterly Project Status as of April 2001 for the DVRPC project implementation for PennDOT, District 6-0 was distributed to the Board for their review.

9. **Home Ownership: A Dream Still Vanishing**

Mary Bell, DVRPC staff, presented to the Board the DVRPC study which assessed the ability to purchase a median-priced house for median-income families, first-time buyers and repeat home buyers.

After the presentation, discussion ensued and further information was requested by Board members to be prepared by DVRPC as follows: (1) an analysis of housing affordability at interest rates of 8%; (2) prepare an overlay for the affordable housing map to include transit; and (3) prepare a list of actions for transportation agencies to become involved with affordable housing efforts.

10. **Committee Reports**

The following Committee Reports were distributed to the Board for their review: (1) PCC/RTC; (2) RCC; and (3) Goods Movement Task Force

**OLD BUSINESS**

No old business was stated.

**NEW BUSINESS**

No new business was stated.

There being no further business, the meeting was adjourned at 12:15 p.m.

Attachments:

- (1) Resolution No. B-FY01-010
- (2) PCC/RTC Recommendations to the Board for April 26, 2001
- (3) RCC Recommendations to the Board for April 26, 2001

Additional Documents distributed to the Board:

- (1) *Alert*, April 2001
- (2) *Freight Lines*, April 2001
- (3) Brochure entitled: *Transportation Vision for the New Decade*

## RESOLUTION

*by the Board of the Delaware Valley Regional Planning Commission*

**ADOPTING THE YEAR 2025 LAND USE AND TRANSPORTATION PLAN  
FOR THE DELAWARE VALLEY REGION**

**WHEREAS**, the Governors and Legislatures of the Commonwealth of Pennsylvania and the State of New Jersey developed an interstate compact in 1965 establishing the Delaware Valley Regional Planning Commission (DVRPC) and charged it with the responsibility of preparing comprehensive plans for the physical development of the region, and

**WHEREAS**, the DVRPC acts as the duly designated Metropolitan Planning Organization (MPO) for the nine-county Philadelphia, Camden and Trenton metropolitan area as required by Title 23 Section 134 and Title 49 Section 1607 of the U.S. Code, and

**WHEREAS**, such MPOs are required at a minimum to triennially update long-range, regional transportation plans which are in keeping with the planning requirements set forth in Title 23 Part 450 Subpart C of the Code of Federal Regulations, and

**WHEREAS**, DVRPC, in the development of such an update, has undertaken a comprehensive new Year 2025 Land Use and Transportation Plan which includes plan elements for highways, mass transit, bicycle and pedestrian modes, freight and aviation, and

**WHEREAS**, the financial requirements of the transportation recommendations of the *Year 2025 Plan* are constrained to a funding level which the Delaware Valley can reasonably anticipate, and

**WHEREAS**, new forecasts of population and employment have been considered in the preparation of the the *Year 2025 Plan*, and these forecasts extend beyond the required twenty year horizon, and

**WHEREAS**, a demonstration of conformity has been conducted indicating that emissions of transportation-related pollutants will not exceed the applicable attainment budgets (and, in New Jersey, proposed budgets), DVRPC certifies that the emissions will conform to the state implementation plans of Pennsylvania and New Jersey, and

**WHEREAS**, copies of the draft *Year 2025 Plan* were released for public comment from March 18 through April 20 of 2001 with a public hearings held on April 4, 11, and 16, 2001, and

**WHEREAS**, DVRPC has certified that the transportation planning process has been conducted in a manner meeting the requirements of all appropriate federal regulations;

**NOW, THEREFORE, BE IT RESOLVED**, that the *Year 2025 Land Use, Transportation and Aviation Plan for the Delaware Valley Region* is adopted.

Adopted this 26th day of April 2001  
by the Board of the Delaware Valley  
Regional Planning Commission.

I do hereby certify that the foregoing is a true copy of Resolution No. B-FY01-010.

  
Jean L. McKinney, Recording Secretary



# PUBLICATION ABSTRACT

**Title:** 2025 Regional Airports System Plan for the Delaware Valley Region

**Publication No.:** 02003

**Date Published:** April 2001

**Geographic Area Covered:** 12 County Delaware Valley Aviation Region

**Key Words:** Aviation, Airports, Heliports, Based Aircraft, Annual Operations, Traffic Demand Projections, Commercial Airports, Reliever Airports, General Aviation Airports, Air Traffic Congestion and Separation, Airport Improvement Program, State Airport Block Grant, Funding Eligibility, Airport Zoning, Licensing, Runway Extensions, Storage Capacity, Airside Capacity, Aviation Legislation.

**Abstract:** This report describes the 2025 Regional Airport System for the 12 county, four state Delaware Valley Region. The plan includes three commercial airports, 12 reliever/business airports, 9 general aviation airports, four existing heliports and two proposed heliport sites. Cost of recommended improvements to all plan facilities by 2025 is estimated at \$2 billion, depending on output of the Philadelphia International Master Plan. Specific policy and programmatic recommendations are made to the States and the FAA to expedite necessary development. This Plan supersedes the 2020 Regional Airport System Plan adopted in 1995.



## **DELAWARE VALLEY REGIONAL PLANNING COMMISSION**

8th Floor – The Bourse Building  
111 South Independence Mall East  
Philadelphia, PA 19106-2582  
Phone: 215-592-1800  
Fax: 215-592-9125  
Internet: [www.dvrpc.org](http://www.dvrpc.org)  
Staff contact: Roger Moog, Manager,  
Office of Aviation Planning  
Direct phone: 215-238-2884  
E-mail: [rmoog@dvrpc.org](mailto:rmoog@dvrpc.org)



**DELAWARE VALLEY REGIONAL PLANNING COMMISSION**

The Bourse Building  
111 South Independence Mall East  
Philadelphia, PA 19106

215-592-1800  
[www.dvrpc.org](http://www.dvrpc.org)

**A P R I L 2 0 0 1**