

## 9. RECOMMENDED SYSTEM

### Recommended System

The Recommended System provides for the development of existing facilities and enhances the ability of certain airports to meet the forecast increases in aviation demand. In addition, the Recommended System provides for the addition of three new, and one replacement airport.

### Recommended Projects

The Recommended System includes projects that address the specific needs of each airport based on its current and forecast traffic. Due to adjustments following the Department of Aviation and airport review, the recommended projects vary somewhat from those detailed in the Facility Requirements Chapter. The adjusted projects include the following:

- › • New Runways – 4 at existing airports and 6 at new or replacement airports
- › • Runway Extensions – 18 airports
- › • Runway Widening – 10 airports
- › • Parallel Taxiways – 4 airports
- › • T-hangars – 31 airports
- › • Conventional Hangars – 33 airports
- › • Apron Area – 22 airports
- › • Auto Parking – 29 airports
- › • Terminal Improvements – 37 airports
- › • NAVAIDS
- › • Instrument Landing System (ILS) – 5 airports
- › • Localizer or Localizer/NDB – 6 airports
- › • Runway Lighting – 23 airports
- › • Ground Communications Outlets – 3 airports
- › • Vertical Guidance Visual Aids (VGVA) – 32 airports
- › • Runway End Identification Lights (REIL) – 14 airports
- › • Weather Reporting – 26 airports

In addition to the demand-based projects, improvements are recommended if justifiable and economically practical as follows to close service gaps in Corporate Jet Accessible airports:

- › Runway extensions to 5,500 feet – Mt. Empire and the new Lee County airport.
- › Reductions in approach minima to 400-1 – Culpeper, Blue Ridge, Mt. Empire, Virginia Highlands, and the new Lee County airport.

## **New Airports**

In addition to the new Lee County and Tappahannock airports already in process, two additional new airports are recommended to close or reduce large service area gaps; a new GA Regional airport in Rocky Mount/Franklin County, and a new GA Community airport in Rockbridge County/Lexington. Each of these airports was recommended in the 1990 VATSP plan, and have been retained as recommendations in this plan. A feasibility study is currently underway for Rocky Mount/Franklin County, however in Rockbridge County/Lexington a new airport is not locally supported, and has been voted down by referendum. Nonetheless, there is still a large unserved population in the area.

In addition, there are on-going planning studies underway for a new airport in Northern Neck. It is expected that by 2020, sufficient demand will exist to justify the development of a Community Service airport.

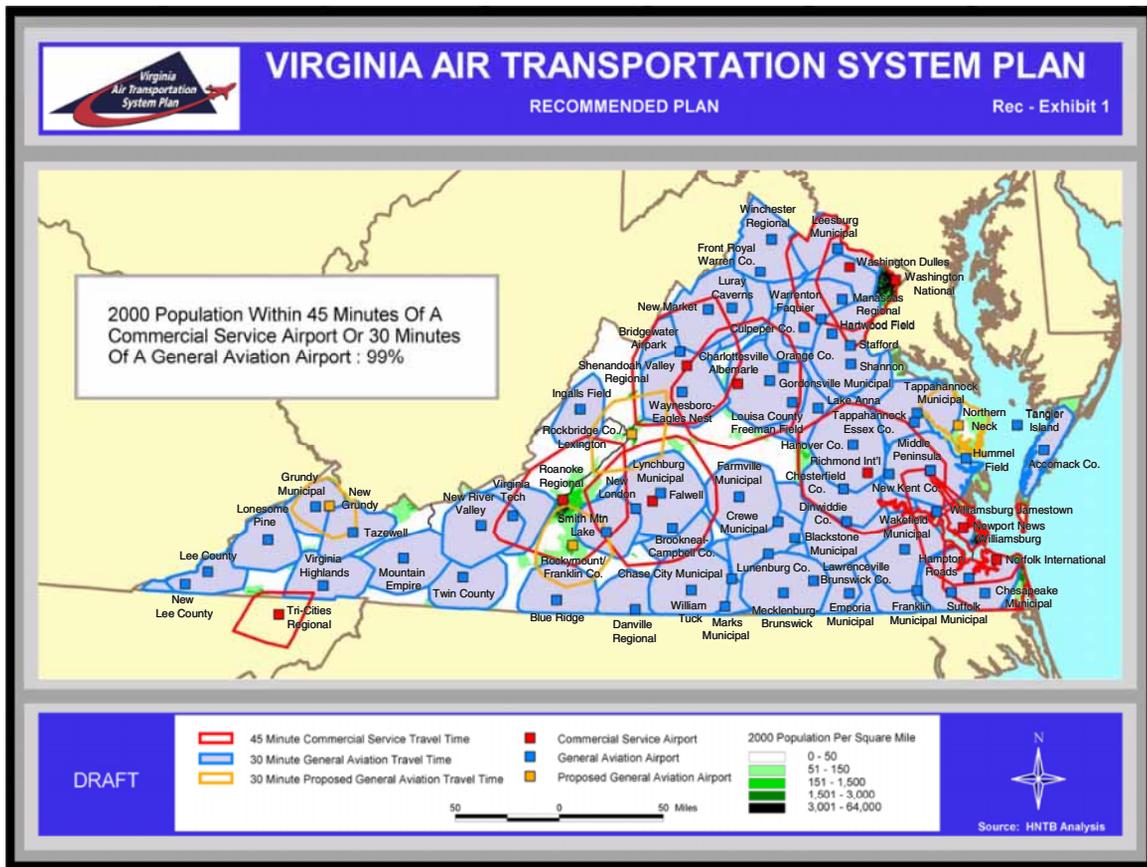
## **Replacement Airports**

A replacement airport is recommended for the existing Grundy airport to address on-going safety issues and development constraints. A replacement airport will also provide corporate access to the community, improving their economic development potential. Exhibit 1 depicts the existing airport system with the recommended new and replacement airports.

## **Redundant Airports**

There are five airports with substantially overlapping, or redundant service areas in the current system – New London, Lake Anna, Lunenburg County, New Market, and Hartwood. However, they are all Local Service airports, and consequently do not divert state or federal funds from higher priority projects. Therefore, their inclusion in the system has a minimal financial impact to the system.

Further, the Commonwealth airport system lost seven airports that were closed or changed to private use, and thus deleted from the VATSP between 1990 and 2002 (Sky Bryce Airport, Glascock Airport, Gloucester Airport, Hilltop Airport, Richlands Airport, Kellam Field, Whitman Strip). The loss of additional airports serves no fiscal purpose, and could further a potentially damaging trend. Therefore, removal of any additional airports is not in the interest of the aviation system and is not recommended.



## Role Changes

During the course of the study, airport sponsors were provided the opportunity to request and justify a role change. Airports requesting role changes included Mountain Empire, Emporia-Greensville, New Market, Crewe, and Bridgewater. Based on the analysis and documentation presented, the roles of Emporia-Greensville and Mountain Empire were changed to General Aviation Regional. The other airports retained their current role designations.

The existing role for each airport was evaluated using criteria detailed in Table 1. As shown in Table 2, and Exhibit 2, immediate role changes are recommended for Shannon, Emporia-Greensville Regional, Louisa County and Mountain Empire airports. In addition, past role changes were proposed for Luray Caverns and the new Tappahannock-Essex County airport. These past proposed role changes were dependent on events such as facility expansion, acquisition of additional airport services, and increases in aeronautical demand.

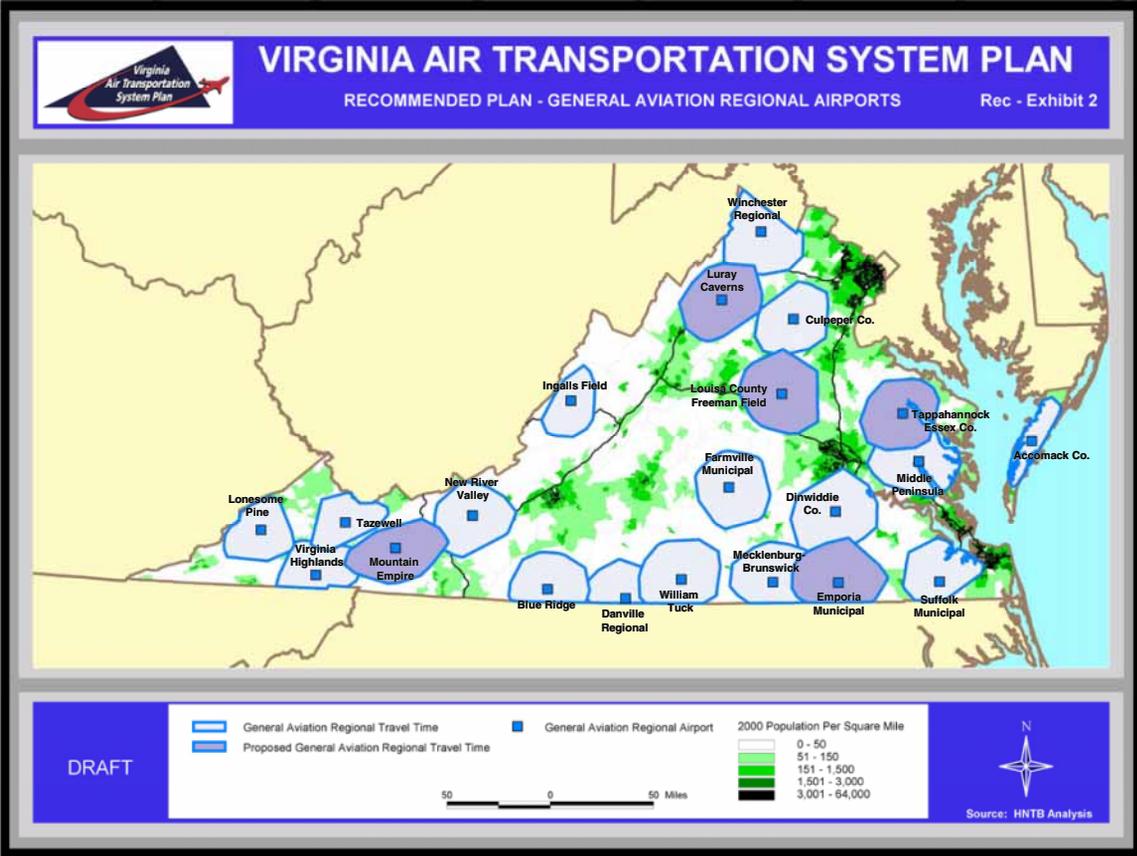
Table 1

	Commercial Service (CS)	Reliever (RL)	GA – Regional (GR)	GA – Community (GC)	Local Service (LO)
<b>Service Role</b>	Provide scheduled commuter and/or air carrier service to surrounding communities.	Provide alternative GA facilities to reduce congestion at commercial service airports.	Provide a full range of aviation facilities and services to business and recreational users in a broad market area. Service areas are often multijurisdictional due to geographic isolation or the relative scarcity of other airport services and facilities.	Provide GA facilities and services to business and recreational users. Community airports typically serve a limited market area.	Provide limited facilities to their respective communities. Substantial expansion is typically precluded by development constraints such as airspace conflicts, environmental concerns, topography, competing services, surrounding land use patterns and ownership status.
<b>Funding Eligibility</b>	Entitlement as well as air carrier/reliever discretionary funding	Air carrier/reliever discretionary funding	GA discretionary funding	GA discretionary funding	GA discretionary funding – safety and preservation projects only
<b>Market Area</b>	Metropolitan area	Metropolitan area, Relieves CS Airport	Regional market area serving multiple jurisdictions, isolated from other GR airports, convenient access	Community market area, access to a separate GR, RL or CS airport	Local market area
<b>Activity Level and Mix</b>	Provides scheduled airline service	25,000 annual operations, 50 based A/C with jets, 500 annual jet operations	10,000 annual operations, 25 Based A/C with jets, 100 jet operations	5,000 annual operations, 10 based A/C, 50 jet operations	Low activity levels
<b>Recommended Facility Attributes</b>	5,500 x 150 runway, parallel taxiway, precision approach	5,500 x 100 runway, parallel taxiway, precision approach	5,500 x 100 runway, non-precision approach (300-1)	3,100 x 75 runway, non-precision approach (400-1)	3,000 x 50 runway, visual approach
<b>Available Services</b>	Jet fuel and AvGas, major maintenance, hangars, passenger terminal, rentals, training, charters	Jet fuel and AvGas, major maintenance, hangars and GA terminal, rentals, training, charters	Jet fuel and AvGas, minor maintenance, hangars and GA terminal, rentals, training, charters	AvGas sales, rentals, training, charters	Limited services
<b>Development/Constraints</b>	No significant constraints	No significant constraints	No significant constraints	No significant constraints	Environmental, airspace, or topographic constraints/ownership status

**Recommended Role Changes**

Airport Name	Airport Identifier	Current Service Role	Recommended Current Service Role	Proposed Future Service role
Shannon	EZF	GR	GC	
Emporia-Greenville Regional	EMV	GC	GR	
Louisa County	LKU	GC	GR	
Mountain Empire	MKJ	GC	GR	
Luray Caverns	W45	GC		GR
Tappahannock-Essex Co. (New)	tbd	GC		GR

Source: HNTB Analysis



The complete list of current airport roles is detailed in Table 3 and depicted in Exhibit 3.

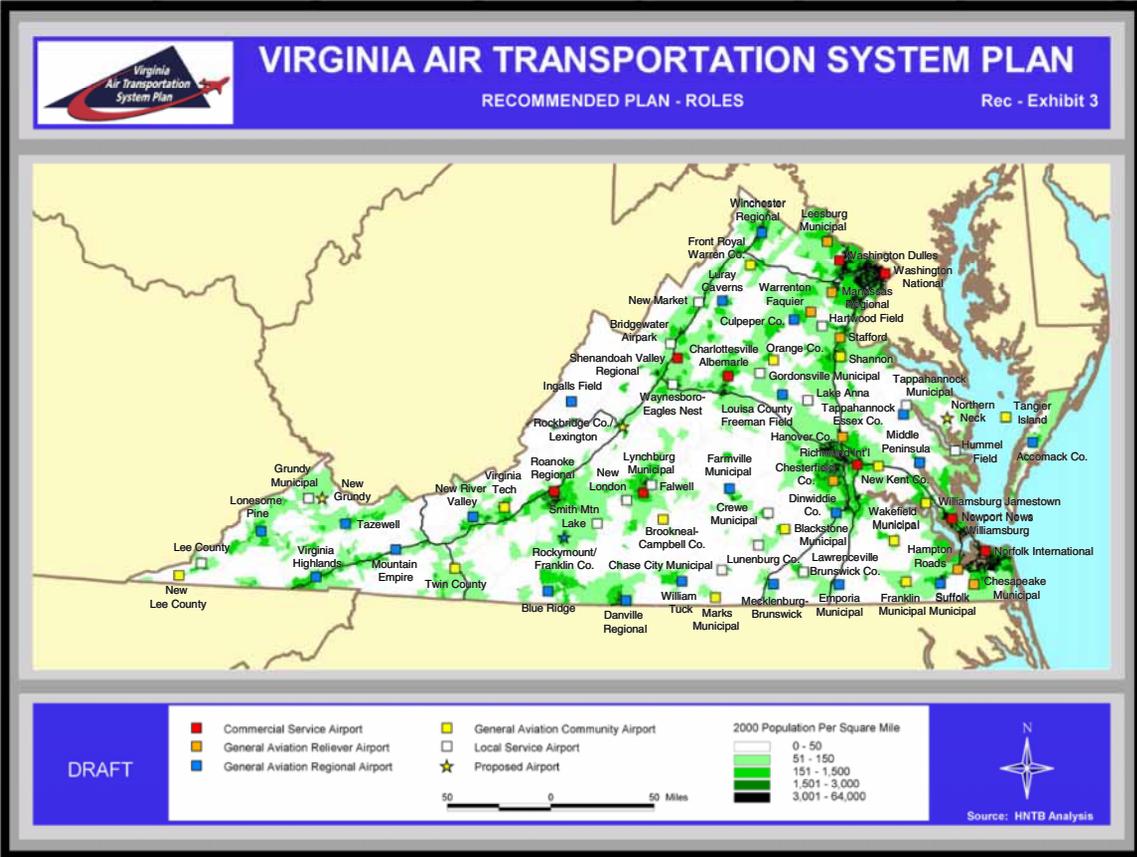


Table 3

## Virginia Air Transportation System Plan

## Recommended Service Roles

Airport Name	Airport Identifier	Current Service Role	Recommended Service Role	Airport Name	Airport Identifier	Current Service Role	Recommended Service Role
Charlottesville-Albemarle	CHO	CM	CM	Blackstone Municipal	BKT	GC	GC
Lynchburg Regional	LYH	CM	CM	Brookneal-Campbell County	0V4	GC	GC
Newport News-Williamsburg International	PHF	CM	CM	Franklin Municipal	FKN	GC	GC
Norfolk International	ORF	CM	CM	Front Royal-Warren County	FRR	GC	GC
Richmond International	RIC	CM	CM	Lee County (New)		GC	GC
Roanoke Regional	ROA	CM	CM	Marks Municipal	W63	GC	GC
Ronald Reagan Washington National	DCA	CM	CM	New Kent County	W96	GC	GC
Shenandoah Valley Regional	SHD	CM	CM	Orange County	OMH	GC	GC
Washington Dulles International	IAD	CM	CM	Shannon	EZF	GR	GC
Chesapeake Regional	CPK	RL	RL	Tangier Island	TGI	GC	GC
Chesterfield County	FCI	RL	RL	Twin County	HLX	GC	GC
Hampton Roads	PVG	RL	RL	Virginia Tech	BCB	GC	GC
Hanover County Municipal	OFF	RL	RL	Wakefield Municipal	AKQ	GC	GC
Leesburg Executive	JYO	RL	RL	Williamsburg-Jamestown	JGG	GC	GC
Manassas Regional	HEF	RL	RL	Bridgewater Air Park	VBW	LO	LO
Stafford Regional	RMN	RL	RL	Chase City Municipal	CXE	LO	LO
Warrenton-Fauquier	W66	RL	RL	Crewe Municipal	W81	LO	LO
Accomack County	MFV	GR	GR	Falwell	W24	LO	LO
Blue Ridge	MTV	GR	GR	Gordonsville Municipal	GVE	LO	LO
Culpeper County	CJR	GR	GR	Grundy Municipal	GDY	LO	LO
Danville Regional	DAN	GR	GR	Hartwood Field	8W8	LO	LO
Dinwiddie County Airport	PTB	GR	GR	Hummel Field	W75	LO	LO
Farmville Regional	FVX	GR	GR	Lake Anna	7W4	LO	LO
Ingalls Field	HSP	GR	GR	Lawrenceville-Brunswick	LVL	LO	LO
Lonesome Pine	LNP	GR	GR	Lunenburg County	W31	LO	LO
Mecklenburg-Brunswick Regional	AVC	GR	GR	New London	W90	LO	LO
Middle Peninsula Regional	W97	GR	GR	New Market	8W2	LO	LO
New River Valley	PSK	GR	GR	Smith Mountain Lake	W91	LO	LO
Emporia-Greensville Regional	EMV	GC	GR	Waynesboro	W13	LO	LO
Louisa County	LKU	GC	GR				
Luray Caverns	W45	GC	GR	Source: HNTB Analysis			
Mountain Empire	MKJ	GC	GR				
Suffolk Municipal	SFQ	GR	GR				
Tappahannock-Essex Co. (New)		GC	GR				
Tazewell County	6V3	GR	GR				
Virginia Highlands	VJI	GR	GR				
William M. Tuck	W78	GR	GR				
Winchester Regional	OKV	GR	GR				

## Beyond 2020

The Commonwealth of Virginia and a number of regional public and private partners launched the Eastern Virginia Airport System Study (EVASS) in 1992 to identify a system of airports that would best meet eastern Virginia's air transportation needs beyond the year 2020. EVASS findings provide guidance for enhancing the efficiency and competitiveness of air transportation in the region and for contributing to the economic vitality of southeastern Virginia and the entire Commonwealth.

The conclusion of EVASS was that a two-airport system, consisting of Richmond International Airport and a new airport in the Hampton Roads region of southeastern Virginia, is the best long-term strategy for maintaining the region's economic competitiveness and providing citizens with efficient and convenient air service. The new airport would provide the opportunity for improved air service in terms of increased daily departures and direct destinations, including international flights. The commercial air service provided by Newport News-Williamsburg International Airport and Norfolk International Airport would be consolidated at the new airport, located in the vicinity of Isle of Wight County on a "greenfield" site. Based on market demand, the existing airports would be used by other aviation users.

Newport News-Williamsburg International and Norfolk International Airports are located in highly congested areas. Although both airports have adequate capacity to handle their existing and future aviation demand, major expansion of both airports would be required to provide improved international flight capabilities. Such expansion would face several hurdles, including ground access, environmental constraints, and incompatible land use encroachment. Although some of these issues could apply to a new airport, a greenfield site would be designed to minimize such adverse impacts, resulting in a carefully planned, well-developed international airport serving the region. A greenfield site would allow for "maximum build-out" of a facility well into the future, while incorporating new technologies and providing the flexibility to allow for market changes, which are inevitable in the aviation industry. A single, globally reaching airport would act as a regional consolidation point for long-haul domestic and international markets. Consolidation of the regional market would have a direct, positive impact on commercial service and on business and job growth.

The existing airports have served their communities well in the 20<sup>th</sup> century. However, airfield limitations, residential encroachment, urban sprawl, major road congestion, and the overall geographic location of these two airports point toward constructing a new airport to serve the region's demands throughout the 21<sup>st</sup> century.