

## TABLE OF CONTENTS

CHAPTER	PAGE NO.
---------	----------

### Chapter One - INVENTORY

A.	Introduction.....	1-1
B.	Airport Location and Setting .....	1-1
C.	Existing Facilities .....	1-1
D.	Aircraft Activity.....	1-5
E.	Airspace Structure and NAVAIDS .....	1-9
F.	Fueling .....	1-12
G.	Ground Access Facilities .....	1-12
H.	Engineering Considerations.....	1-13
I.	County Planning .....	1-13

### Chapter Two – FORECAST

A.	General.....	2-1
B.	Based Aircraft by Type.....	2-3
C.	Aircraft Operations by Type .....	2-4
D.	Aircraft Operations – Local vs. Itinerant .....	2-7
E.	Forecast Summary .....	2-8

### Chapter Three – FACILITY REQUIREMENTS

A.	General.....	3-1
B.	Critical Aircraft.....	3-1
C.	Runways and Taxiways .....	3-2
	1. Runway Length and Width .....	3-3
	2. Pavement Strength and Pavement Condition .....	3-4
	3. Runway Safety Area .....	3-5
	4. Runway Object Free Area.....	3-5
	5. Runway Protection Zones.....	3-5
	6. Runway Designation.....	3-6
	7. Taxiways.....	3-7
D.	General Aviation Development .....	3-7
	1. Aircraft Apron Space .....	3-8
	2. Aircraft Tie-Downs.....	3-9
	3. Helicopter Parking.....	3-9
	4. Aircraft Hangars .....	3-9
	5. General Aviation Terminal Building .....	3-10
	6. Airport Access/Automobile Parking.....	3-11
	7. Instrument Approach Procedures.....	3-11

	8. Visual Aids/Vault .....	3-12
	9. Fueling Requirements .....	3-14
	10. Fencing.....	3-14
E.	Property Requirements .....	3-14

#### Chapter Four – AIRPORT DEVELOPMENT ALTERNATIVES

A.	General.....	4-1
B.	Development of Alternatives.....	4-1
	1. Precision Instrument Approach Capability.....	4-2
	2. Airport Reference Code: B-II vs. C-II .....	4-7
	3. Runway Extension & State Route 611 Relocation .....	4-18
	4. Proposed West Side Development.....	4-20
C.	Conclusions and Recommendations .....	4-24

#### Chapter Five – AIRPORT LAYOUT PLAN SET

A.	General.....	5-1
B.	Airport Layout and Terminal Area Plan .....	5-3
	1. Runways.....	5-3
	2. Terminal Development .....	5-5
	3. Hangar Development .....	5-5
	4. Auto Parking.....	5-6
	5. Airport Access .....	5-7
	6. Ancillary Facilities and Development .....	5-7
C.	Airport Property Map.....	5-8
D.	Airport Airspace Plan .....	5-10
E.	Inner Portion of the Approach Surface Drawing .....	5-11
F.	Land Use Map.....	5-12
G.	FAA Remarks and Conclusions.....	5-12

#### Chapter Six – CAPITAL IMPROVEMENT PROGRAM

A.	Introduction .....	6-1
B.	Funding Sources .....	6-2
	1. Federal Aviation Administration .....	6-2
	2. Virginia Department of Aviation .....	6-2
	3. Local Funding.....	6-3
	4. Private Funding.....	6-3
	5. Funding Sources .....	6-3
C.	FAA Remarks and Conclusions.....	6-3

## LIST OF TABLES

TABLE	PAGE NO.
Table 1-1	Existing Facilities..... 1-4
Table 1-2	Approach Categories and Design Groups ..... 1-6
Table 1-3	Typical Aircraft..... 1-6
Table 1-4	Based Aircraft ..... 1-7
Table 1-5	Based Aircraft Listing..... 1-7
Table 1-6	Fuel Sales ..... 1-12
Table 2-1	Historical Based Aircraft ..... 2-2
Table 2-2	Forecast of Based Aircraft ..... 2-2
Table 2-3	Historical Based Aircraft by Type ..... 2-3
Table 2-4	Forecast of Based Aircraft by Type ..... 2-4
Table 2-5	Based Aircraft by Type (Average Annual Growth Rate Percent) ..... 2-4
Table 2-6	Historical General Aviation Operations..... 2-5
Table 2-7	Forecast of General Aviation Operations..... 2-5
Table 2-8	VATSP Forecast Operations by Aircraft Type ..... 2-6
Table 2-9	Forecast Operations by Aircraft Type ..... 2-6
Table 2-10	Operations by Aircraft Type (Average Annual Growth Rate Percent) ..... 2-7
Table 2-11	Local/Itinerant Operations ..... 2-8
Table 2-12	Forecast Summary..... 2-9
Table 3-1	Critical Aircraft..... 3-2
Table 3-2	Runway Length Requirements ..... 3-3
Table 3-3	Runway Bearing..... 3-6
Table 4-1	Approach Procedures ..... 4-2
Table 4-2	B-II versus C-II ..... 4-14
Table 6-1	Phase I (2002-2007) Development Program ..... 6-4
Table 6-2	Phase II (2008-2012) Development Program..... 6-5
Table 6-3	Phase III (2013-2022) Development Program ..... 6-6
Table 6-4	Total Development Program ..... 6-7

## LIST OF EXHIBITS

EXHIBIT		PAGE NO.
Exhibit 1-1	Location Map .....	1-2
Exhibit 1-2	Vicinity Map .....	1-3
Exhibit 1-3	Terminal Procedures .....	1-10
Exhibit 1-4	Terminal Procedures .....	1-11
Exhibit 4-1	Non-Precision 34:1 Greater Than $\frac{3}{4}$ Mile.....	4-4
Exhibit 4-2	Non-Precision 34:1 $\frac{3}{4}$ Mile or Less .....	4-5
Exhibit 4-3	ILS 50:1 Approach.....	4-6
Exhibit 4-4	ILS Precision Approach Primary/Approach Surfaces.....	4-8
Exhibit 4-5	B-II .....	4-9
Exhibit 4-6	C-II .....	4-10
Exhibit 4-7	B-II vs. C-II.....	4-11
Exhibit 4-8	Proposed B-II Runway Extension .....	4-12
Exhibit 4-9	Proposed C-II Runway Extension.....	4-13
Exhibit 4-10	Existing West Side Development .....	4-21
Exhibit 4-11	Proposed West Side Development .....	4-23

## APPENDICES

Appendix "A"	Glossary of terms
Appendix "B"	2000 VATSP Forecasts
Appendix "C"	ALP Checklist