TABLE OF CONTENTS

PROJECT INTRODUCTION, GOALS AND OBJECTIVES ............................................. 1
INTRODUCTION TO AVIATION DEMAND FORECASTS ........................................ 1
Aviation Demand Forecasting Goals and Objectives ........................................... 1
STUDY APPROACH & FORECAST METHODOLOGIES ....................................... 2
Overall Forecasting Methodology......................................................................... 2
Forecast Assumptions ............................................................................................ 4
Forecast Approaches ............................................................................................ 4
Data Resources Utilized for Aviation Demand Forecasting .................................... 5
National General Aviation Trends ....................................................................... 7
FORECAST STUDY ELEMENTS ............................................................................. 9
GENERAL AVIATION ACTIVITY .......................................................................... 9
Washington State/County Registered Aircraft Forecasts ....................................... 9
Based General Aviation Aircraft Forecasts at System Plan Airports .................... 34
General Aviation System Plan Fleet Mix ............................................................. 34
General Aviation Operations .............................................................................. 34
Forecast of Annual Instrument Approaches (AIA’s) .............................................. 45
MAJOR AIR CARRIER/REGIONAL CARRIER ACTIVITY .................................. 48
CRITICAL AIRCRAFT FORECASTS .................................................................. 61
MILITARY ACTIVITY ......................................................................................... 64
CARGO ACTIVITY .............................................................................................. 66
CONCLUSION OF FORECAST FINDINGS ............................................................. 77

TABLES

1A Demographic Data ......................................................................................... 10
1B Aviation Activity ............................................................................................. 11
1C Statewide Registered Aircraft Forecasts ....................................................... 12-15
1D State Population Change Attributed to Each County .................................... 20-21
1E 1998 Per Capita Personal Income for Washington Counties ....................... 22
1F Population Density of Washington Counties ................................................. 23-24
1G Registered Aircraft Apportionment Matrix .................................................. 25-26
1H County Registered Aircraft Forecasts .......................................................... 27
1I Registered Aircraft by Region ......................................................................... 30-31
1J Based Aircraft Forecasts ................................................................................ 35-38
1K General Aviation Aircraft Operations Aircraft Forecasts ............................ 40-43
1L Airports with No Baseline Activity Levels .................................................... 45
1M Nationwide Air Carrier Activity ................................................................. 50
1N Aircraft Serving Washington Airports ......................................................... 51
1O Annual Enplanements on Scheduled Air Carriers ......................................... 53
1P Annual Operations by Scheduled Air Carriers .............................................. 53
1Q Scheduled air Carrier Activity ....................................................................... 54-58
1R Change in Airport Reference Code/Critical Aircraft .................................... 62
1S Military Operations ......................................................................................... 65
1T Domestic Air Cargo Revenue Ton Miles ....................................................... 68
1U Air Cargo Tonnage at Washington Airports ................................................ 73-76
# TABLE OF CONTENTS (continued)

## EXHIBITS

<table>
<thead>
<tr>
<th>Exhibit</th>
<th>Description</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>Pilots as Percentage of Total Population for 1998</td>
<td>16</td>
</tr>
<tr>
<td>B</td>
<td>Forecasts Increase in Registered Aircraft from 1998 to 2010</td>
<td>18</td>
</tr>
<tr>
<td>C</td>
<td>Washington Department of Transportation Regions</td>
<td>23</td>
</tr>
<tr>
<td>D</td>
<td>Registered Aircraft by Region</td>
<td>26</td>
</tr>
<tr>
<td>E</td>
<td>Registered Aircraft Per Thousand Population</td>
<td>27</td>
</tr>
<tr>
<td>F</td>
<td>Based Aircraft by Region</td>
<td>33</td>
</tr>
<tr>
<td>G</td>
<td>General Aviation Aircraft Operations</td>
<td>39</td>
</tr>
<tr>
<td>H</td>
<td>Percent of Time Instrument Meteorological Conditions Prevail</td>
<td>41</td>
</tr>
<tr>
<td>I</td>
<td>Enplanement Forecasts at Airports with Scheduled Commercial Service</td>
<td>51</td>
</tr>
<tr>
<td>J</td>
<td>Enplanement Forecasts at Airports with Scheduled Commercial Service</td>
<td>52</td>
</tr>
<tr>
<td>K</td>
<td>Washington Air Freight Movements by Type of Cargo Hold</td>
<td>60</td>
</tr>
<tr>
<td>L</td>
<td>Washington Air Freight Tonnage by Reporting Airport</td>
<td>63</td>
</tr>
<tr>
<td>M</td>
<td>Washington Interstate and Intrastate Air Freight Movements</td>
<td>64</td>
</tr>
<tr>
<td>N</td>
<td>Washington Air Freight Between Sea-Tac and other Washington Airports</td>
<td>65</td>
</tr>
</tbody>
</table>

## APPENDIX A

- Based Aircraft Fleet Mix

## APPENDIX B

- Annual Aircraft Operations