

TABLE OF CONTENTS

CHAPTER ONE: AVIATION SYSTEM GOALS AND PERFORMANCE MEASURES	1-1
Introduction.....	1-1
Study Overview.....	1-1
Purpose of Airport System Planning.....	1-2
Study Process.....	1-3
Review of Previous Studies.....	1-4
Establishment of System Vision, Goals, and Performance Measures	1-6
Summary.....	1-10
CHAPTER TWO: REVIEW OF CURRENT POLICY	2-1
Introduction.....	2-1
Review Of Current State Policies	2-1
Comparison with Other States	2-22
Summary.....	2-23
CHAPTER THREE: IDENTIFICATION OF AIRPORT ASSETS	3-1
Introduction.....	3-1
Inventory Process	3-1
SASP Airports	3-3
Existing Airport Facilities	3-6
Existing Services.....	3-21
Airport Activity.....	3-24
Airspace	3-32
NAVAIDS	3-37
Approach Types	3-37
Airport Planning Documentation.....	3-48
Airport Development Constraints	3-51
Summary.....	3-53
CHAPTER FOUR: FORECASTS OF AVIATION DEMAND	4-1
Introduction.....	4-1
Socioeconomic and Other Factors Impacting Aviation Demand.....	4-1

Commercial Service	4-3
General Aviation	4-14
Summary	4-48
CHAPTER FIVE: AIRPORT CLASSIFICATION ANALYSIS	5-1
Introduction	5-1
Federal Classifications	5-1
Other State Classifications	5-6
ADOT Functional Roles	5-12
2018 SASP Update Classifications	5-17
Facility and Service Objectives	5-26
Primary Components of the Arizona Aviation Industry	5-30
Summary	5-33
CHAPTER SIX: CURRENT AVIATION SYSTEM PERFORMANCE	6-1
Introduction	6-1
Goal Category: Safety and Security	6-2
Goal Category: Fiscal Responsibility	6-18
Goal Category: Economic Support	6-56
Facility and Service Objectives	6-64
Summary	6-72
CHAPTER SEVEN: FUTURE SYSTEM PERFORMANCE	7-1
Introduction	7-1
Outside Influences	7-1
Review of Historical, Current, and Future Performance	7-8
Summary	7-58
CHAPTER EIGHT: AIRPORT PROJECT COSTS AND ALTERNATIVE SCENARIOS	8-1
Introduction	8-1
SASP Update-Related Project Costs	8-1
Non SASP Update-Related Project Costs	8-10
Total Project Costs and Alternative Scenarios	8-12
Summary	8-19

CHAPTER NINE: RECOMMENDED PLAN AND POLICIES	9-1
Introduction	9-1
Summary of SASP Update Project Recommendations	9-2
Future NPIAS Considerations	9-14
Implementation of SASP Update Recommendations	9-15
Policy Recommendations	9-27
Consideration for Additional Program Funding	9-31
Comparison of Recommendations	9-33
Summary	9-35
 APPENDIX A: GLOSSARY OF TERMS	 A-1
Abbreviations	1
Definitions	A-4
 APPENDIX B: ARIZONA AIRPORT REFERENCE TABLES.....	 B-1
 APPENDIX C: NATIONAL PLAN OF INTEGRATED AIRPORT SYSTEMS ANALYSIS	 C-1
Introduction	C-1
Airports in Arizona	C-1
NPIAS Eligibility Criteria	C-2
2008 SASP NPIAS Analysis	C-3
Arizona Airports to be Considered for Inclusion in the NPIAS	C-4
Arizona Airports at Risk of NPIAS Reclassification.....	C-4
 APPENDIX D: ARIZONA DEMOGRAPHICS	 D-1
Historical and Projected Demographics in Arizona	D-1
 APPENDIX E: FACILITY AND SERVICE OBJECTIVES	 E-1
Airside Facilities	E-1
Landside Facilities and Services	E-31
 APPENDIX F: OUTSIDE INFLUENCES	 F-1
Introduction	F-1
Stability of Oil Prices	F-2
Population Growth	F-3
Employment Growth and Industry Trends	F-10
Tourism Rates	F-12

International Trade Developments	F-15
Major Surface Transportation Improvements.....	F-18
Conclusions.....	F-22

LIST OF TABLES

CHAPTER ONE: AVIATION SYSTEM GOALS AND PERFORMANCE MEASURES	1-1
Table 1. APMS Construction Costs (2013 – 2016)	1-6
Table 2. Performance Measures and System Indicators by Goal Category.....	1-9
CHAPTER TWO: REVIEW OF CURRENT POLICY	2-1
Table 1. Articles of A.R.S. Title 28, Chapter 25	2-3
Table 2. Comparison of Powers & Duties Granted by A.R.S. Title 28, Transportation to the STB & ADOT .	2-10
Table 3. Summary of the Five-Year Airport Development Program.....	2-16
Table 4. Summary of Grant Categories and Example Project Components.....	2-18
Table 5. Comparison of ADOT Aeronautics Group Duties & Programs with Other Western States.....	2-22
CHAPTER THREE: IDENTIFICATION OF AIRPORT ASSETS	3-1
Table 1. Airports Surveyed	3-3
Table 2. Airports Removed from Further SASP Analysis	3-4
Table 3. Airport Reference Code Summary	3-7
Table 4. Runway Lengths and ARCs	3-9
Table 5. Existing Airside Facilities	3-13
Table 6. Existing Landside Facilities	3-19
Table 7. Statewide Based Aircraft by Type, 2016	3-24
Table 8. Based Aircraft by Type, 2016	3-25
Table 9. Statewide Operations by Type, 2016.....	3-28
Table 10. Aircraft Operations by Type, 2016.....	3-29
Table 11. Arizona Passenger Enplanements, 2016.....	3-32
Table 12. Navigational Aids and Approach Types.....	3-42
Table 13. Completion Dates of Airport Master Plans and Airport Layout Plans	3-48
Table 14. Airport Development Constraints.....	3-51
CHAPTER FOUR: FORECASTS OF AVIATION DEMAND.....	4-1
Table 1. Recent Airline Mergers and Acquisitions.....	4-4

Table 2. Enplanement Projections for Arizona’s Commercial Service Airports.....	4-10
Table 3. Air Carrier and Air Taxi/Commuter Projections for Arizona’s Commercial Service Airports.....	4-11
Table 4. Based Aircraft Projections for Arizona’s Commercial Service Airports	4-12
Table 5. TAF Total Operations Projections for Arizona’s Commercial Service Airports	4-13
Table 6. Estimated Current and Forecasted Total Active GA Aircraft Fleet Mix in the U.S.	4-17
Table 7. FAA Aerospace Forecast for GA Hours Flown (in Thousands)	4-17
Table 8. Historic and Current Arizona Aircraft by County	4-18
Table 9. Based Aircraft Reporting Comparison	4-20
Table 10. Historic and Current AZ GA Operations and U.S. GA Operations	4-22
Table 11. FAA Aerospace Forecast Grouped and Applied to SASP Update Forecasts.....	4-24
Table 12. 2016 Market Shares of U.S. GA Fleet.....	4-25
Table 13. Forecasted Total Based Aircraft Using 2016 Market Share	4-27
Table 14. Forecasted Total Based Aircraft Using Population Growth Rates	4-29
Table 15. Preferred Based Aircraft Forecast.....	4-32
Table 16. Forecasted Operations Using OPBA Method (rounded to the nearest 10).....	4-35
Table 17. ARC, Group, and Growth Rate	4-37
Table 18. Forecasted Aircraft Operations Using ARC Method (rounded to the nearest 10)	4-38
Table 19. Preferred Operations Forecast with Local and Itinerant Split	4-41
Table 20. TAF Comparison of Based Aircraft Forecasts.....	4-44
Table 21. TAF Comparison of GA Operations Forecast	4-46
CHAPTER FIVE: AIRPORT CLASSIFICATION ANALYSIS.....	5-1
Table 1. NPIAS Airports (U.S. and Arizona).....	5-2
Table 2. Arizona’s NPIAS Airports	5-3
Table 3. GA Airport ASSET Categories	5-5
Table 4. ASSET Categories of Arizona’s GA Airports.....	5-5
Table 5. Stratification Methodologies of Reviewed State System Plans	5-8
Table 6. Most Common Criteria Used in System Planning Role Stratification	5-10
Table 7. Treatment of Privately Owned, Public-Use Airports in State System Plans	5-11
Table 8. 2008 SASP Airport Roles	5-14
Table 9. Arizona Airport Classifications (2008 and 2017).....	5-21
Table 10. Summary Results.....	5-23
Table 11. 2018 SASP Update Classification Summary	5-23

Table 12. Facility and Service Objectives Criteria by Classification	5-28
CHAPTER SIX: CURRENT AVIATION SYSTEM PERFORMANCE	6-1
Table 1. Runway Safety Area Dimensions	6-10
Table 2. Airports Used as Staging Areas for Wildland Firefighting.....	6-17
Table 3. ALPs at Arizona Airports by Year.....	6-23
Table 4. PCI Ratings at Individual Airports.....	6-25
Table 5. Land Ownership Types and Percentage of State Total	6-43
Table 6. Direct and Indirect Economic Impact of Arizona Airports	6-62
CHAPTER SEVEN: FUTURE SYSTEM PERFORMANCE.....	7-1
Table 1. Summary of 2008 SASP Roles versus 2018 SASP Update Classifications.....	7-9
Table 2. 2008 SASP Roles versus 2018 SASP Update Classifications	7-10
Table 3. Airports Capable of Supporting Medical Operations — Historic/Current Performance	7-12
Table 4. Airports Capable of Supporting Medical Operations — Historic/Future Performance Targets	7-14
Table 5. Needs by Airports Not Currently Meeting Criteria to Support Medical Operations Targets	7-15
Table 6. Airports with Controls/Zoning — Historic/Current Performance.....	7-16
Table 7. Airports with Airport Disclosure Maps — Historic/Current Performance.....	7-17
Table 8. Controls/Zoning — Historic/Future Performance Targets	7-17
Table 9. Airport Disclosure Maps — Historic/Future Performance Targets.....	7-17
Table 10. Needs by Airports Currently Lacking Land Use Compatibility Controls to Achieve Targets.....	7-18
Table 11. Airports Controlling All Primary Runway End RPZs — Historic/Current Performance	7-20
Table 12. Airports Controlling All Primary Runway End RPZs — Historic/Future Performance Targets.....	7-20
Table 13. Existing Type and Level of Primary Runway End RPZ Control by Airports Not Meeting Criteria .	7-21
Table 14. Airports with Compliant RSAs for their Current ARC — Historic/Current Performance	7-24
Table 15. Airports with Compliant RSAs for their Current ARC — Historic/Future Performance Targets ...	7-24
Table 16. Needs by Airports with Primary Runway RSAs that Do Not Meet Standards for Current ARCs...	7-25
Table 17. Airports with Clear Approaches to Primary Runway Ends — Current Performance.....	7-26
Table 18. Airports with Clear Approaches to Primary Runway Ends — Future Performance Targets.....	7-26
Table 19. Needs by Airports Without Clear Approaches to Primary Runway Ends to Achieve Targets.....	7-27
Table 20. Percent of Airports with an Adopted WHA or WHMP — Current/Historic Performance	7-29
Table 21. Percent of Airports with an Adopted WHA or WHMP — Future Performance Targets.....	7-30
Table 22. Needs by Airport for the Adoption of a WHA or WHMP to Achieve Performance Targets	7-31
Table 23. Population within 30 Minutes of an All-Weather Runway — Historic/Current Performance	7-32

Table 24. Population within 30 Minutes of an All-Weather Runway — Historic/Future Targets	7-33
Table 25. Needs by Airports that Do Not Meet Facility and Service Objectives for All-Weather Runway ..	7-36
Table 26. Airports with a Current Master Plan (Within 10 Years) — Current Performance	7-37
Table 27. Airports with a Current Master Plan or ALP Update — Future Performance Targets.....	7-38
Table 28. Needs by Airport with a Master Plan Beyond the 10-year Threshold	7-38
Table 29. Airports Meeting Primary Runway PCI Threshold — Historic/Current Performance.....	7-40
Table 30. Airports Meeting Primary Taxiway and Apron PCI Thresholds — Current Performance	7-40
Table 31. Airports Meeting Primary Runway PCI Threshold — Historic/Future Performance Targets	7-41
Table 32. Airports Meeting Primary Taxiway and Apron PCI Thresholds — Future Performance Targets..	7-41
Table 33. Needs by Airport to Achieve PCI Thresholds Per Pavement Area	7-42
Table 34. Airports with 24/7 Fuel — Historic/Current Performance	7-45
Table 35. Airports with 24/7 Fuel — Historic/Future Performance Targets	7-46
Table 36. Needs by Airport to Achieve Performance Targets Established for 24/7 Fuel Availability	7-46
Table 37. Needs by Airports Providing One Type of Aviation Fuel to Achieve Performance Suggestion	7-47
Table 38. Airports Recognized in Local Comprehensive Plans — Historic/Current Performance.....	7-48
Table 39. Airports Recognized in Regional Transportation Plans — Historic/Current Performance	7-49
Table 40. Airports Recognized in Local Comprehensive Plans — Historic/Future Performance Targets	7-49
Table 41. Airports Recognized in Regional Transportation Plans — Historic/Future Performance Targets	7-50
Table 42. Needs by Airport for Recognition in Growth Plan/Regional Transportation Plan.....	7-50
Table 43. Airports with Facilities to Support Jet Aircraft — Current Performance	7-52
Table 44. Airports with Facilities to Support Jet Aircraft — Future Performance Target	7-53
Table 45. Needs by Airport to Meet the Criteria to Support Jet Aircraft to Achieve Targets	7-54
CHAPTER EIGHT: AIRPORT PROJECT COSTS AND ALTERNATIVE SCENARIOS	8-1
Table 1. Airside Facility Objectives by Classification	8-2
Table 2. Airside Facility Objective Recommendation Costs 2017-2037	8-3
Table 3. Landside Facility Objectives by Classification	8-4
Table 4. Landside Facility Objective Recommendation Costs 2017-2037	8-4
Table 5. Landside Service Objectives by Classification	8-5
Table 6. Landside Service Objective Recommendation Costs 2017-2037	8-6
Table 7. Objective Category Cost Comparison 2017-2037	8-7
Table 8. Performance Measure Recommendation Costs 2017-2037.....	8-9
Table 9. Non-SASP Update Related Project Costs 2017-2037	8-11

Table 10. Total System-Wide Project Costs 2017-2037.....	8-12
Table 11. Total System-Wide Project Costs by Airport Classification 2017-2037	8-13
Table 12. Scenario #1 System-Wide Project Costs 2017-2037	8-17
Table 13. Scenario #2 System-Wide Project Costs 2017-2037	8-18
CHAPTER NINE: RECOMMENDED PLAN AND POLICIES	9-1
Table 1. Highlights of SASP Findings	9-3
Table 2. Highlights of SASP Update Performance Measure Recommendations	9-13
Table 3. Demand / Capacity Analysis.....	9-19
Table 4. System Airports in Cochise County	9-23
Table 5. Arizona Airport Runway Incursion Data from FAA's Runway Incursion Management Program	9-26
Table 6. Annual Funding Gap.....	9-32
Table 7. SASP Recommendation Comparison	9-34
APPENDIX B: ARIZONA AIRPORT REFERENCE TABLES.....	B-1
Table 1. Arizona Airports, Numerical/Alphabetical by FAA Airport Identifier.....	B-1
Table 2. Arizona Airports, Alphabetical by Associated City.....	B-2
Table 3. Arizona Airports, Alphabetical by Airport Name	B-3
APPENDIX C: NATIONAL PLAN OF INTEGRATED AIRPORT SYSTEMS ANALYSIS	C-1
Table 1. Current Arizona Airports Not Included in the NPIAS	C-2
Table 2. Arizona Airports at Risk Related to 2019 NPIAS Status	C-5
APPENDIX D: ARIZONA DEMOGRAPHICS	D-1
Table 1. Population (in Thousands)	D-3
Table 2. Median Age by County.....	D-5
Table 3. Arizona's Employment by Sector (in Thousands)	D-6
Table 4. Top Five Employment Sectors by County with Associated Airports.....	D-9
Table 5. Arizona's Employment by County (in Thousands)	D-11
Table 6. Arizona's Per Capita Gross Regional Product by County (in Thousands).....	D-13
Table 7. Percentage of Households with Incomes below \$45,000 by County	D-15
APPENDIX E: FACILITY AND SERVICE OBJECTIVES	E-1
Table 1. Aircraft Characteristics and Design Components	E-4
Table 2. ARC Objective Performance by Airport	E-5
Table 3. Primary Runway Length Objective Performance by Airport.....	E-8

Table 4. Primary Runway Width Objective Performance by Airport.....	E-10
Table 5. Primary Runway Surface Objective Performance by Airport.....	E-13
Table 6. Primary Taxiway Objective Performance by Airport	E-16
Table 7. Instrument Approach Objective Performance by Airport	E-19
Table 8. Visual Aids Objective Performance by Airport.....	E-23
Table 9. Airfield Lighting Objective Performance by Airport.....	E-28
Table 10. ALS Objective Performance by Airport	E-30
Table 11. Airport Fencing Objective Performance by Airport	E-32
Table 12. Landside Facility Objective Performance by Airport	E-36
Table 13. Landside Services Objective Performance by Airport.....	E-43
APPENDIX F: OUTSIDE INFLUENCES	F-1
Table 1. Arizona System Airports within the Sun Corridor.....	F-6
Table 2. Population Projections (2016 – 2036) and Number of Airports by County.....	F-9
Table 3. Projected Job Growth by Region (2014-2014).....	F-10
Table 4. Travel-Generated Employment by Arizona County	F-13
Table 5. Major Planned and Ongoing Roadway Improvement Projects	F-20

LIST OF FIGURES

CHAPTER ONE: AVIATION SYSTEM GOALS AND PERFORMANCE MEASURES	1-1
Figure 1. SASP Update Study Process.....	1-3
Figure 2. System Plan Update Process.....	1-7
CHAPTER TWO: REVIEW OF CURRENT POLICY	2-1
Figure 1. Key Purposes and Overview of A.R.S. Title 28 — Transportation, STB, and ADOT Aeronautics	2-2
Figure 2. State Aviation Fund Revenue Sources	2-7
Figure 3. Total Revenue into the State Aviation Fund (Fiscal Years 2006 – 2015)	2-8
Figure 4. Impacts of S.B. 1531 on Aircraft Registration & Jet Fuel Tax Revenues into State Aviation Fund	2-9
Figure 5. State Funding Allocations by Airport Role (Existing)	2-16
Figure 6. APMS Program Process.....	2-20
Figure 7. ACIP Timeline	2-21
CHAPTER THREE: IDENTIFICATION OF AIRPORT ASSETS	3-1
Figure 1. 2018 SASP Airports	3-5

Figure 2. Primary Runway Length.....	3-8
Figure 3. FAA Recognized Taxiway Types	3-11
Figure 4. Aircraft Parking/Storage	3-17
Figure 5. Aircraft Tie-Downs	3-17
Figure 6. Maintenance Services Per Airport.....	3-22
Figure 7. Passenger/User Services Per Airport.....	3-23
Figure 8. 2016 Based Aircraft	3-24
Figure 9. Operations by Type, 2016.....	3-28
Figure 10. Airspace – Phoenix, AZ.....	3-34
Figure 11. FAA Airspace Classifications	3-35
Figure 12. Airport Approaches.....	3-40
CHAPTER FOUR: FORECASTS OF AVIATION DEMAND.....	4-1
Figure 1. Historical Oil Prices	4-6
Figure 2. Estimated Current and Forecasted Total Active GA Aircraft in the U.S.....	4-15
Figure 3. U.S. GA Aircraft Fleet Mix	4-16
CHAPTER FIVE: AIRPORT CLASSIFICATION ANALYSIS.....	5-1
Figure 1. ADOT Airport Role Functional Classifications.....	5-16
Figure 2. State Funding Allocations by Airport Role (Existing)	5-17
Figure 3. 2018 SASP Update Flow Chart Methodology	5-22
Figure 4. 2018 SASP Update Airport Classifications	5-25
Figure 5. Relationship Between Roles, Aviation Activity, and Facilities and Services	5-30
Figure 6. Economic Impact of Primary Components of Arizona’s Aviation Industry by Percent of Total ...	5-30
CHAPTER SIX: CURRENT AVIATION SYSTEM PERFORMANCE	6-1
Figure 1. Percent of Airports that Meet Criteria to Support Medical Operations.....	6-3
Figure 2. Percent of Airports Accommodating Medical Operations	6-5
Figure 3. Example of a Public Airport Disclosure Map	6-7
Figure 4. Percent of Airports by Classification with Compatible Controls/Zoning and Disclosure Areas	6-8
Figure 5. RPZ	6-8
Figure 6. Percent of Airports by Classification Controlling all Primary Runway End RPZs	6-9
Figure 7. Percent of Airports by Classification Meeting Primary Runway RSA Standards	6-11
Figure 8. Percent of Airports by Classification with Clear Approaches to Both Ends of Primary Runway ...	6-12
Figure 9. Percent of Airports with Obstructions by Type	6-13

Figure 10. Percent of Airports by Classification with an Adopted WHA or WHMP..... 6-14

Figure 11. Percent of Airports by Classification with a Formal Vegetation Management Plan 6-15

Figure 12. Percent of Airports by Classification with a Written Emergency Response Plan 6-16

Figure 13. Percent of Airports by Classification Supporting Aerial Firefighting 6-17

Figure 14. 30-Minute Drive Times of System Airports with an All-Weather Runway 6-20

Figure 15. Percent of Airports by Classification Within the Past Five Years..... 6-22

Figure 16. Percent of Airports by Classification with a Master Plan Within the Past 10 Years..... 6-22

Figure 17. PCI Index and ADOT’s Maintenance Project Thresholds 6-25

Figure 18. Percent of Airports by Classification Meeting Overall PCI Compliance..... 6-27

Figure 19. Percent of Airports by Classification Meeting Primary Runway PCI Compliance..... 6-28

Figure 20. Airports Meeting Primary Taxiway PCI Compliance (≥ 70)..... 6-29

Figure 21. Airports Meeting Apron PCI Compliance (≥ 55) 6-29

Figure 22. 30-Minute Drive Times of Commercial Service-International Airports 6-31

Figure 23. 30-Minute Drive Times of Commercial Service-National Airports 6-32

Figure 24. 30-Minute Drive Times of Reliever Airports 6-33

Figure 25. 30-Minute Drive Times of GA-Community Airports 6-34

Figure 26. 30-Minute Drive Times of GA-Rural Airports..... 6-35

Figure 27. 30-Minute Drive Times of GA-Basic Airports..... 6-36

Figure 28. 30-Minute Drive Times of CS-International and CS-National Airports 6-38

Figure 29. 30-Minute Drive Times of CS-International, CS-National, & Reliever Airports 6-39

Figure 30. 30-Minute Drive Times of CS-International, CS-National, Reliever, & GA-Community..... 6-40

Figure 31. 30-Minute Drive Times of CS-International, CS-National, Reliever, GA-Community, & GA-Rural 6-41

Figure 32. 30-Minute Drive Times of all SASP Airports 6-42

Figure 33. Land Ownership in Arizona 6-44

Figure 34. 60-Minute Drive Times of a Commercial Service Airport 6-46

Figure 35. 90-Minute Drive Times of a Commercial Service Airport 6-47

Figure 36. 30-Minute Drive Times of NPIAS Airports in Arizona 6-49

Figure 37. Communities Greater than 1,000 Population within a 30-Minute Drive Time of a GA Airport.. 6-51

Figure 38. 30-Minute Drive Times of System Airports Meeting Business User Needs..... 6-53

Figure 39. Percent of Airports by Classification with Utilities 6-55

Figure 40. Percent of Airports by Classification with 24/7 Fuel Service..... 6-57

Figure 41. Percent of Airports by Classification Recognized in Local or Regional Growth Plans 6-58

Figure 42. Percentage of Airports by Classification with the Facilities to Support Jet Aircraft..... 6-59

Figure 43. Number of Airports that Meet/Do Not Meet Criterion to Support Jet Aircraft 6-60

Figure 44. Percentage of Airports by Classification Experiencing Flight Training Operations 6-61

Figure 45. Percent of Airports by Classification Meeting Airside Facility Objectives (1 of 2)..... 6-65

Figure 46. Percentage of Airports by Classification Meeting Airside Facility Objectives (2 of 2)..... 6-66

Figure 47. Percent of Airports by Classification Meeting Landside Facility Objectives 6-67

Figure 48. Percentage of Airports by Classification Meeting Landside Service Objectives (1 of 4) 6-68

Figure 49. Percent of Airports by Classification Meeting Landside Service Objectives (2 of 4) 6-69

Figure 50. Percent of Airports by Classification Meeting Landside Service Objectives (3 of 4) 6-70

Figure 51. Percent of Airports by Role Meeting Landside Service Objectives (4 of 4) 6-71

CHAPTER SEVEN: FUTURE SYSTEM PERFORMANCE.....7-1

Figure 1. Airports that Meet Criteria to Support and Accommodate Medical Operations..... 7-13

Figure 2. Percent of Population within 30 Minutes of an Airport with an All-Weather Runway..... 7-34

Figure 3. Summary of Current System-wide Performance and Future System-wide Performance Targets 7-57

CHAPTER EIGHT: AIRPORT PROJECT COSTS AND ALTERNATIVE SCENARIOS8-1

Figure 1. Composition of Airside Facility Objective Recommendation Costs 2017-2037 8-3

Figure 2. Composition of Landside Facility Objective Recommendation Costs 2017-2037 8-5

Figure 3. Composition of Landside Service Objective Recommendation Costs 2017-2037 8-7

Figure 4. Total Objective Recommendation Costs by Category 2017-2037 8-8

Figure 5. Composition of Performance Measure Recommendation Costs 2017-2037 8-10

Figure 6. Composition of Non-SASP Update Project Costs 2017-2037 8-12

Figure 7. Total System-Wide Project Costs 2017-2037 8-13

Figure 8. Commercial Service-International Project Costs 2017-2037..... 8-14

Figure 9. Commercial Service-National Project Costs 2017-2037 8-14

Figure 10. Reliever Project Costs 2017-2037..... 8-15

Figure 11. GA-Community Project Costs 2017-2037 8-15

Figure 12. GA-Rural Project Costs 2017-2037 8-16

Figure 13. GA-Basic Project Costs 2017-2037..... 8-16

Figure 14. Total Project Costs by Airport Classification 2017-2037 8-17

Figure 15. Scenario #1 Project Costs 2017-2037 8-18

Figure 16. Scenario #2 Project Costs 2017-2037 8-19

CHAPTER NINE: RECOMMENDED PLAN AND POLICIES9-1

Figure 1. Cochise County Airports 9-24

APPENDIX D: ARIZONA DEMOGRAPHICS	D-1
Figure 1. Arizona and U.S. Population Over Time	D-1
Figure 2. U.S. and Arizona Historic and Projected Median Age	D-4
Figure 3. Arizona’s Workforce Over Time.....	D-6
Figure 4. Arizona Employment by Select Sectors	D-8
Figure 5. U.S. and Arizona Employment Rate Over Time	D-10
Figure 6. Arizona Gross Regional Product Over Time.....	D-12
Figure 7. Arizona Per Capita Gross Regional Product Over Time	D-12
Figure 8. Percentage of Households with Incomes below \$45,000	D-14
Figure 9. Historic Tourist Spending in Arizona.....	D-16
APPENDIX E: FACILITY AND SERVICE OBJECTIVES	E-1
Figure 1. Summary of Airside Facility and Service Objectives (1 of 2).....	E-2
Figure 2. Summary of Airside Facility and Service Objectives (2 of 2).....	E-3
Figure 3. Percentage of Airports by Classification Meeting ARC Objectives	E-5
Figure 4. Percentage of Airports by Classification Meeting Primary Runway Length Objectives	E-7
Figure 5. Percentage of Airports by Classification Meeting Primary Runway Width Objectives	E-10
Figure 6. Percentage of Airports by Classification Meeting Primary Runway Surface Objectives	E-12
Figure 7. Percentage of Airports by Classification Meeting Primary Taxiway Objectives	E-15
Figure 8. Percentage of Airports by Classification Meeting Instrument Approach Objectives	E-18
Figure 9. Percentage of Airports by Classification Meeting All Visual Aid Objectives.....	E-21
Figure 10. Percentage of Airports by Classification Meeting Individual Visual Aid Objectives	E-22
Figure 11. Percentage of Airports by Classification Meeting Airfield Lighting Objectives	E-27
Figure 12. Percentage of Airports by Classification Meeting ALS Objectives.....	E-30
Figure 13. Percentage of Airports by Classification Meeting Airport Fencing Objectives.....	E-32
Figure 14. Percentage of Airports by Classification Meeting Landside Facility Objectives	E-35
Figure 15. Percentage of Airports by Classification Meeting Landside Service Objectives (1 of 4)	E-39
Figure 16. Percentage of Airports by Classification Meeting Landside Service Objectives (2 of 4)	E-40
Figure 17. Percentage of Airports by Classification Meeting Landside Service Objectives (3 of 4)	E-41
Figure 18. Percentage of Airports by Classification Meeting Landside Service Objectives (4 of 4)	E-42
APPENDIX F: OUTSIDE INFLUENCES	F-1
Figure 1. West Texas Intermediate Crude Oil Price and U.S. Production (1997 – 2019)	F-2
Figure 2. Arizona’s Historic Population Growth (1970 – 2000)	F-4

Figure 3. Arizona’s Total Population and Growth Rates (2000 – 2018) F-4

Figure 4. Sun Corridor Population Versus Land Area (2010) F-6

Figure 5. Airports in the Sun Corridor..... F-8

Figure 6. Arizona Annual Visitation (2004 – 2016) F-12

Figure 7. Travel-Generated Employment as a Percent of Total by Region (2016) F-13

Figure 8. Arizona State Spending, Visitor Air Transportation F-14

Figure 9. Arizona’s Top Foreign Trading Partners (2016) F-16

Figure 10. Arizona Trade with Mexico (2016) F-17