



Airport Master Plan Update



- FINAL -
August 2009

Prepared by

COOPER
ROBERTS
SIMONSEN
ASSOCIATES



J-U-B ENGINEERS, Inc.
ENGINEERS • SURVEYORS • PLANNERS

Contents

1.	Introduction	5
1.1	Acknowledgements	5
1.2	Airport History.....	6
1.3	Airport Location and Access.....	7
1.4	Airport Role.....	7
1.5	Commuter Airline Service History.....	8
2.	Inventory of Existing Conditions.....	10
2.1	Existing Document Summary	10
2.2	Area Topography.....	11
2.3	Climate	11
2.4	Land.....	12
2.5	Airfield Facilities.....	14
	Runways	14
	Taxiways and Taxilanes	14
	Aprons and Aircraft Parking	15
2.6	Airfield Support Facilities	18
	Aircraft Rescue and Firefighting (ARFF)	18
	Utilities	18
	Common Traffic Advisory Frequency (CTAF)	18
	Automated Surface Observation System (ASOS).....	18
	Airport Navigational Aids (NAVAIDS)	18
	Airport Lighting and Signing.....	18
	Snow Removal Equipment (SRE) and Airport Maintenance Equipment	19
	Fueling Facilities and Fixed Base Operators (FBOs)	19
	Runway Protection Zones (RPZ)	19
	Part 77 Surfaces	20
2.7	Landside Facilities	21
	Hangars and Airport Buildings.....	21
	General Circulation Access and Vehicle Parking	21
2.8	Land Use Planning and Zoning (Existing).....	24
	Existing Land Use Regulations.....	24
	Comprehensive Plan Considerations	24
	Zoning Ordinance Considerations.....	25
	Airport Overlay Zone	25
2.9	Environmental Overview.....	29
	Conclusion.....	33
3.	Socioeconomic Data	34
3.1	Population.....	34
3.2	Employment	34
3.3	Economic Impact.....	35
4.	Aviation Activity and Forecasting	37
4.1	Trends in General Aviation	37
4.2	Airport Classification and Current Aircraft Data	39
4.3	Historical and Current Aviation Data	40
4.4	Future Aviation Activity Forecasts	42

Forecast 1: FAA Terminal Area Forecast Growth Rate	42
Forecast 2: UCASP Forecast Growth Rate/Methodology	42
Forecast 3: Socioeconomic Data Forecast Growth Rate	42
4.5 Recommended Operations Forecast Versus TAF	44
5. Facility Requirements.....	46
5.1 Airport Design Criteria	46
5.2 Future Airport Reference Code and Critical Aircraft.....	49
5.3 Airside Facilities	50
Runways	51
Taxiways and Taxilanes	53
Aprons and Other Airfield Pavements.....	54
Objects Affecting Navigable Airspace (Part 77)	54
Airport Navigational Aids (NAVAIDs)	54
Lighting, Signing, and Marking	54
Approach Procedures	54
5.4 Landside Facilities	54
Hangars	54
Tie-Downs	55
Airport Access and Vehicle Parking	55
Fencing	55
Aircraft Rescue and Fire Fighting (ARFF).....	55
Fueling Facilities	55
Fixed Base Operators (FBOs) and Aviation-Related Services	56
Utilities and Infrastructure	56
Property and Easements	56
5.5 Summary of Airport Facility Needs.....	56
5.6 Public, Users, and Operators Needs	57
6. Development Alternatives.....	59
6.1 Alternative 1A	59
6.2 Alternative 1B	59
6.3 Alternative 2A.....	60
6.4 Alternative 2B.....	60
6.5 Alternative 3.....	61
6.6 Selected Open House Alternatives	61
7. Recommended Airport Plan	67
7.1 Recommended Alternative Development Concept	67
Public Open House Comments	69
Recommendation.....	69
Airside Plan	70
Landside Plan	75
7.2 Area Land Use Planning	79
Land Use Goals & Objectives.....	80
Land Use Decision-Making Criteria	80
Land Use Analysis	81
Land Use Concept Development	83
Preferred Scenario Selection Process	84
Preferred Scenario Design	85
Land Use Study Map	85
Vicinity & Airport Influence Map	85
Existing Land Use Regulations/Tools.....	87

Land Use Recommendations.....	87
8. Financial Plan (Future)	89
8.1 Capital Improvements Funding	89
Federal Grants.....	89
State Funding	90
8.2 Capital Improvement Plan (CIP).....	92
Short Term Capital Needs	96
Intermediate Term Capital Needs	96
Long Term Capital Needs	96
Commercial Service Development Needs	96
8.3 Financial Plan.....	97
Approach	97
Operations Analysis	97
Financial Forecast.....	98

Appendices

- Appendix A - Airport Layout Plan Drawing Set
- Appendix B - Public Involvement Summary
- Appendix C - Airport Noise Analysis
- Appendix D - Preliminary Environmental Scan

Figures

Figure 1. Vicinity Map	8
Figure 2. Weather Conditions Affecting Flight Rules in Effect.....	12
Figure 3. Airport Property Ownership Map.....	13
Figure 4. 2006 UDOT Pavement Condition Index Survey.....	16
Figure 5. Existing Facilities.....	17
Figure 6. Terminal Area Map	22
Figure 7. Zoning Classification.....	28
Figure 8. Wetland Aerial	32
Figure 9. FAA TAF Historical Based Aircraft Data	40
Figure 10. Alternative 1	62
Figure 11. Alternative 2	63
Figure 12. Alternative 3	64
Figure 13. Recommended Alternative.....	65
Figure 14. Recommended Alternative.....	68
Figure 15. Conceptual Rendering of Terminal	73
Figure 16. Proposed Terminal Building.....	75
Figure 17. Future Airport Influence Zones.....	82
Figure 18. Preferred Area Land Use Plan	86
Figure 19. Proposed CIP for Logan-Cache Airport	95

Tables

Table 1. Runway 17-35 and Runway 10-28 Features.....	14
Table 2. RPZ Dimensions for Runways 17-35 and 10-28.....	19
Table 3. Terminal Area Map Building Descriptions.....	23
Table 4. Schedule of Uses.....	26

Table 5.	Environmental Attributes at the Airport.....	29
Table 6.	Historical Population of the Bear River MCD Counties	34
Table 7.	Employment Statistics for the Bear River MCD Counties.....	34
Table 8.	Economic Impact Summary at the Logan-Cache Airport	35
Table 9.	Minimum Objectives	39
Table 10.	FAA TAF Historical Aircraft Operations Data.....	40
Table 11.	Current Aviation Demand	41
Table 12.	Bear River MCD Population and Employment Forecasts.....	42
Table 13.	Comparison of Based Aircraft Forecasts	43
Table 14.	Forecast Based Aircraft Fleet Mix.....	43
Table 15.	Comparison of Aircraft Operations Forecasts	43
Table 16.	Logan-Cache Airport Aviation Demand Forecasts	44
Table 17.	Comparison of Selected Forecasts with Terminal Area Forecasts	44
Table 18.	Representative Aircraft by Airport Reference Code	46
Table 19.	Aircraft Approach Categories.....	48
Table 20.	Airplane Design Groups.....	48
Table 21.	Aircraft Characteristics and Estimated Operations	50
Table 22.	Airport Design Standards Evaluation	51
Table 23.	Airport Design Standards Evaluation	57
Table 24.	Projected Commercial Flights to Key Airports.....	72
Table 25.	Proposed CIP for Logan-Cache Airport	93
Table 26.	Annual Operating Budget 2009	98
Table 27.	Financial Forecast 2010 to 2014	99