

SKYHAVEN AIRPORT MASTER PLAN UPDATE

DRAFT INVENTORY, FORECASTS AND FACILITY REQUIREMENTS

November 2008



Prepared for:



New Hampshire DOT

Prepared by:

Jacobs Edwards and Kelcey
In Association with
The Smart Associates

TABLE OF CONTENTS

<u>Title</u>	<u>Page</u>
EXECUTIVE SUMMARY	1
INTRODUCTION	5
CHAPTER 1 INVENTORY	8
1.1 FAA Design Standards	8
1.2 Skyhaven Airport Ownership and Management	11
1.3 Existing Aviation Activity at Skyhaven Airport	11
1.4 Airport Traffic Pattern Procedures at Skyhaven Airport	17
1.5 Skyhaven Airport Facilities – Existing Condition	18
1.6 Environmental Conditions at Skyhaven Airport	19
1.7 City of Rochester Zoning	20
CHAPTER 2 FORECASTS OF AVIATION ACTIVITY	21
2.1 Introduction	21
2.2 Recent Trends in Regional General Aviation Activity	21
2.3 Previous Forecasts	27
2.4 Factors that could affect future activity at Skyhaven Airport	30
2.5 Forecast Scenarios	35
CHAPTER 3 AIRPORT FACILITY REQUIREMENTS	42
3.1 Introduction	42
3.2 Skyhaven Airport Facility Improvements and Needs	42
3.3 Runway Length Requirements	46
3.4 Summary of Facility Requirements	49
APPENDIX A	AIRPORT PHOTOS
APPENDIX B	INSTRUMENT APPROACH PROCEDURES
APPENDIX C	FAA AIRPORT DATA
APPENDIX D	FAA AIRCRAFT REGISTRATION DATA
APPENDIX E	WETLANDS FIELD INVESTIGATION
APPENDIX F	THE CITY OF ROCHESTER ZONING ORDINANCE
APPENDIX G	CORPORATE JET RUNWAY LENGTH TABLES
APPENDIX H	AIRCRAFT SPECIFICATIONS AND PERFORMANCE TABLE

TABLE OF CONTENTS (continued)

Tables

ES-1 Summary of Existing Conditions - 2008 Compared to 2000
Table I-1 2001 AMPU Recommendations (Project Status as of Fall 2008)
Table 1-1 Skyhaven Airport Facilities
Table 1-2 Based Aircraft and Operations – Skyhaven Airport, August 2008
Table 1-3 Fuel Sales – Skyhaven Airport
Table 1-4 Regional Fuel Prices for 100LL Aviation Fuel
Table 2-1A Forecast of Based Aircraft, 2001 AMPU
Table 2-1B Forecast of Aircraft Operations, 2001 AMPU
Table 2-2 NH State Airport System Plan Update Forecasts
Table 2-3 Regional Public Use Airports – Driving Distances & Times
Table 2-4 Forecast of Based Aircraft by Type – Scenario A
Table 2-5 Forecast of Based Aircraft by Type – Scenario B
Table 2-6 Forecast of Based Aircraft by Type – FAA TAF
Table 3-1 New Instrument Approaches – FAA Criteria
Table 3-2 FAA Airport Design Criteria
Table 3-3 FAA Imaginary Surfaces and Penetrations

Figures

Figure 1-1 Typical General Aviation Aircraft at Skyhaven Airport
Figure 1-2 FAA FAR Part 77 Imaginary Surfaces and Penetrations
Figure 1-3 FAA Registered Aircraft by County
Drawing No. 1 – Existing Airport Layout Plan
Drawing No. 2 – Terminal Area Plan
Figure 1-4 City of Rochester Zoning Districts
Figure 2-1 Regional Public Use Airports
Drawing No. 2 – Runway 33 Precision Final Approach Segment
Drawing No. 5 – Runway 33 Departure Surface
Drawing No. 11 – FAR Part 77

TABLE OF CONTENTS (continued)

Charts

Chart 1-1 Based Aircraft – Skyhaven Airport

Chart 1-2 100LL Fuel Sales – Skyhaven Airport

Chart 1-3 Jet-A Fuel Sales – Skyhaven Airport

Chart 1-2 100LL Fuel Sales – Skyhaven Airport

Chart 2-1A. Portsmouth International Airport at Pease

Chart 2-1B. Manchester-Boston Regional Airport

Chart 2-1C. Lebanon Municipal Airport

Chart 2-1D. Boire Field-Nashua Municipal Airport

Chart 2-1E. Portland International Jetport

Chart 2-1F. Beverly Municipal Airport

Chart 2-1G. Lawrence Municipal Airport

Chart 2-2 Crude Oil Prices

Chart 2-3 Forecast of Based Aircraft – Skyhaven Airport, 2001 AMPU

Chart 2-4 Forecast of Operations – Skyhaven Airport, 2001 AMPU

Chart 2-5 Forecast of Based Aircraft – Skyhaven Airport, Scenario A

Chart 2-6 Forecast of Aircraft Operations – Skyhaven Airport, Scenario A

Chart 2-7 Forecast of Based Aircraft – Skyhaven Airport, Scenario B

Chart 2-8 Forecast of Aircraft Operations – Skyhaven Airport, Scenario B

Chart 2-9 Forecast of Aircraft Operations – Skyhaven Airport, FAA TAF

Chart 3-1 Forecast of Aircraft Operations 2001 AMPU vs. Actual Operations