

Chapter 1 (Introduction): this chapter is the introduction for the Airport Master Plan Update. This chapter is essentially complete, in a draft final state (currently 6 pages in length). However, minor comments regarding this chapter can still be received and addressed.

CHAPTER ONE:

INTRODUCTION

The Airport Master Plan Update (AMPU) for the Belfast Municipal Airport (BST or the “Airport”) has been undertaken by the City of Belfast (also known as the “Airport Sponsor”), to define a long-range, measured plan for reasonable and orderly airport development that will produce a safe, efficient, economical, and environmentally acceptable air transportation facility. The study was funded by the Federal Aviation Administration (FAA), the Maine Department of Transportation - Airports and Aviation Division (MaineDOT Aviation), and the City of Belfast. Technical work was conducted by a Study Team that was led by Airport Solutions Group, LLC, and supported by NewEarth Ecological Consulting.

An AMPU is designed to provide a carefully considered, systematic approach to the Airport’s overall maintenance, development, and operation over a 20-year planning period. It reviews and assesses the Airport’s current conformance with federal and state airport design and operational standards to help ensure that the Airport continues to operate in as safe a manner as possible. This document will identify the need for future facilities and then plan for their development, so that the Airport can effectively and efficiently anticipate their construction well in advance of the actual demand for them. This study will also help ensure that the Belfast Municipal Airport can appropriately plan for and coordinate project approvals, design, financing, and construction, while avoiding the detrimental effects that could be realized due to inadequate or noncompliant airport facilities.

1.1 MASTER PLAN PURPOSE AND OBJECTIVES

The overall purpose of the BST AMPU is to define the Airport Sponsor’s strategy for the long-term development of Belfast Municipal. It provides the framework to guide future airport development that will cost-effectively satisfy current and future aviation demand in a logical and financially-feasible manner, while also considering relevant environmental and community factors.

Consistent with this purpose, specific objectives were established for the AMPU through coordination with the Airport Sponsor and other interested stakeholders. The following represent the general study objectives that were recognized by that group for this planning effort. (Please note that more specific facility objectives were also identified as part of these discussions. These are discussed in greater detail in **Chapter Four, Airfield Capacity & Facility Requirements.**)

- Must address development on and around BST (incl. residential and commercial);
- Plan for BST to continue to grow as an economic asset for the entire community;

- Must reflect BST’s existing needs and anticipate future challenges;
- Must be consistent with the City’s overall comprehensive plan (Note that this may affect the existing airport zoning overlay district and land uses, as well as their dimensional standards.);
- Must review existing land uses on and around BST, and must anticipate potential future uses and users;
- Should aspire to find realistic numbers to underlie the goals we set such as number of landings per year;
- Should serve all aviation needs and uses including recreational aviation uses at BST;
- Must attempt to quantify the specific impact of a potential runway extension;
- Must continue to provide maximum service to all medical related flights;
- Should pursue a runway length that best supports the users of the runway;
- Must support the needs of local visitors to BST and the City;
- Must maintain the safety of aircraft operations, as well as those who live near and around BST as the highest priority;
- Should investigate if it is realistic that BST could support small commercial flights today or in the future;
- Should identify appropriate facilities and airport policies to attract a new fixed base operator (FBO) for BST;
- Should plan for fuel storage and fuel services at BST at a level commensurate with future demand;
- Must preserve BST’s long-term development potential in order to allow the City to be flexible to respond to future needs while respecting the environment;
- Must preserve and protect public and private investments in BST’s existing facilities;
- Maximize BST’s economic benefit for the local community, the city, the state and the region;
- Provide a plan that allows the Airport to meet the long-term air transportation needs of the city, the state and the region in a safe, secure, and efficient manner;
- Promote the development of compatible land uses in the vicinity of BST in a manner that is sensitive to the surrounding communities and the environment;
- Ensure that development plans are consistent with the safe, secure, efficient, environmentally responsible, and financially sound operation of Belfast Municipal Airport; and
- Actively engage the public throughout the planning process.

It should be acknowledged that these goals are consistent with those established in the **2006 Maine Aviation Systems Plan Update** (MASPU). Generally, the MASPU stated that the Maine airport system (and by extension the airports that comprise that system), should strive for the following:

- To promote an airport system that improves Maine’s quality of life by supporting health, welfare, and safety-related services and activities.

- To have an airport system that adequately serves current and forecast demand.
- To encourage and recognize system airports that support aviation programs and outreach opportunities in Maine.
- To provide for a safe airport system, as measured by compliance with applicable FAA standards.
- To advance a system of airports that is supportive of Maine's economy, ensuring that the airport system is matched to Maine's socioeconomic and demographic characteristics.
- To protect and support an airport system that maintains the flexibility to respond to changes in future needs in Maine, while considering the environment.
- To provide an airport system that is easily accessible from both the ground and the air.

In addition to addressing these objectives, the AMPU must also fulfill the broad master planning goals established by the FAA in **FAA Advisory Circular (AC) 150/5070-6B, *Airport Master Plans***. These goals include the following:

- Document issues that the proposed development will address;
- Justify the proposed development through the technical, economic, and environmental investigation of concepts and alternatives;
- Provide an effective graphic presentation of the development of the Airport and anticipated land uses in the vicinity;
- Establish a realistic schedule for implementing the development proposed in the Master Plan Update, particularly the short-term capital improvement program;
- Propose an achievable financial plan to support the implementation schedule;
- Provide sufficient project definition and detail for subsequent environmental evaluations that may be required before the project is approved;
- Present a plan that adequately addresses the issues and satisfies local, state, and federal regulations;
- Document policies and future aeronautical demand to support municipal or local deliberations on spending, debt, land use controls, and other policies necessary to preserve the integrity of the Airport and its surroundings; and
- Set the stage and establish the framework for a continuing planning process.

1.2 OVERVIEW OF AIRPORT ISSUES

The last Airport Master Plan the Belfast Municipal Airport was completed in 1999, with an Airport Layout Plan Update being conducted in 2008, both by Dufresne-Henry. Since that time, many of the Airport issues identified in those efforts have

been addressed by the completion of specific projects or the updating of specific airport policies. Others not addressed may have been due to changing industry circumstances and/or master plan assumptions, or have still yet to be resolved.

For the 2015 AMPU, the following points of focus were identified to be addressed within this study effort.

- Runway 15-33 Approaches: BST needs to establish a long-term plan to maintain clear approach surfaces to its only runway.
- Runway 15-33 Length: There have been multiple inquiries regarding the potential extension of the primary runway. An appropriate length should be identified and the need for potential runway extension should be vetted.
- Taxiway A: There is currently only a short, partial parallel taxiway on the airport. This is a safety issue and the development of a full-length parallel taxiway should be assessed.
- Terminal Area Development: As the existing terminal area continues to be developed, there needs to be a review of the long-term development plan for the area. Specifically, this will review potential segregation of operations, prioritization of development areas, expansion of services, etc.
- Long-Term Development Areas: Airport property should be reviewed to establish a long-term development prioritization. Also included should be potential determinations on airport lands not required for future aviation-related development.
- Airport Land Use Compatibility: As the Airport and surrounding community continue to develop, the need to establish appropriate airport land use compatibility policies becomes more important.
- Pavement Maintenance: Prepare an airport pavement maintenance program that considers the age and condition of existing airport pavements, options for maintenance or repair, and approximate costs for these improvements.

All of these issues, among others, will be discussed in subsequent chapters to varying degrees.

1.3 MASTER PLAN COMMUNICATION & COORDINATION

Public involvement is an integral part of any significant airport planning study since it encourages information-sharing and collaboration among the community

and the airport stakeholders that hold a collective interest in the outcome of the study. Stakeholders typically include the airport sponsor, airlines, tenants, users, local businesses and residents, resource agencies, elected and appointed public officials, and the general public. With such a diverse stakeholder group, a variety of forums are often employed to enhance the effectiveness of the project coordination effort.

For the BST AMPU, a **Project Management Team (PMT)** was established and comprised of members representing the Airport Sponsor, the FAA, and MaineDOT Aviation to ensure that the project was executed within the approved scope of work, budget, and schedule. Additionally, the PMT served as an important resource with respect to providing information and guidance regarding specific technical elements. Dedicated PMT meetings were held four times throughout the master planning project.

A **Project Advisory Committee (PAC)** was established to serve as a resource to ensure the AMPU addressed the key issues facing the Airport and its surrounding community today and into the future. The PAC consisted of members representing Airport neighbors, the City of Belfast – City Manager, the City of Belfast - City Council, the City of Belfast – Planning Department, the City of Belfast – Economic Development Department, the Belfast Municipal Airport Advisory Committee, Airport pilots, and Airport business interests, in addition to those members of the PMT. Their roles were to review and comment on draft study products, and to provide linkages to agencies and other constituencies as represented by the PAC membership four PAC meetings were held throughout the project.

Finally, in addition to the PMT and PAC, other forms of public involvement included **public meetings/workshops** and briefings to elected/appointed officials. Public workshops provided an opportunity to engage the public in meaningful conversation about the Airport and the AMPU. **Two** such meetings were conducted in an “open house” format with interactive information stations staffed by airport personnel and the Project Team. Other additional briefings or technical meetings were organized with key agencies, stakeholders, or public officials as required.

1.4 MASTER PLAN UPDATE ELEMENTS

The Belfast Municipal AMPU has been prepared consistent with the guidance provided in **FAA AC 150/5070-6B, *Airport Master Plans***, and other industry-accepted principles and practices. This Master Plan Update has seven chapters that are designed to identify future facility requirements and provide the supporting rationale for their implementation.

Chapter ONE

Introduction provides an overview of the AMPU, including its purpose, its objectives, its work products and the overall structure of the project.

Inventory establishes a sound basis for plan and program development through the assimilation and documentation of relevant data. The inventory is designed to assemble essential data regarding the physical, operational, and functional characteristics of BST, its sub-components, and its environs. This data collection process includes the gathering of environmental data so that it can be considered throughout the master planning process.

Chapter TWO

Forecasts of Aviation Activity essentially serves as the hub of the AMPU by utilizing local socioeconomic information, as well as national air transportation trends, to project the levels of aviation activity that can reasonably be expected to occur at the Airport over a 20-year period. Assessing these future trends relating to airport utilization and operational activity levels is especially important in that many of the proposals and recommendations of the plan are principally based on the resultant aviation activity demand forecasts. Therefore, it is very important that the resultant forecasts be both reasonable and defensible.

Chapter THREE

Airfield Capacity & Facility Requirements utilizes the results of the Forecasts to assess the ability of existing airside and landside facilities to meet the projected level of demand for the five, ten and twenty year planning horizons. This analysis results in the definition of requirements for additional facilities, expansion to existing facilities and the determination of those facilities that will meet the forecast of demand over the course of the 20-year planning period. Beyond this, the airport is examined with respect to improvements needed to safely serve the type of aircraft expected to operate at the airport in the future, including compliance with FAA design standards, as well as navigational aids to increase the safety and efficiency of operations.

Chapter FOUR

Alternatives Analysis & Development Concepts considers a variety of solutions to accommodate the anticipated facility needs identified by the Facility Requirements analysis. Through this process, various facility and site plan alternatives are proposed and weighed with respect to their ability to meet the projected facility needs. An analysis is completed to evaluate the alternatives for their ability to meet the identified facility requirements in an efficient and appropriate manner designed to meet the airport's long-term goals. As a tool for the alternatives review and evaluation, evaluation matrixes are employed to help identify the strengths and weaknesses of each proposed development alternative, with the intention of determining a single direction for development. Included in this chapter is an environmental screening of the development plan.

Chapter FIVE

Airport Plans provides both a graphic and narrative description of the recommended plan for the use, development, and operation of the airport.

Chapter SIX

Financial Implementation Plan focuses on the capital improvement program which defines the schedules, costs, and funding sources for the recommended development plan. It is important that the development program is practical, reasonable, and capable of assisting in enhancing economic viability for the Airport.

Chapter SEVEN