Wiley Post/Will Rogers Memorial Airport
MASTER PLAN UPDATE

Chapter 1
Introduction

DRAFT

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Prepared for

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1 Introduction

1.1 What Is an Airport Master Plan?

An airport master plan is a comprehensive study of an airport that describes the short- (5-year), medium- (10-year), and long-term (20-year) development plans to meet future aviation demand. The goal of a master plan is to provide the framework needed to guide future airport development that will cost-effectively satisfy aviation demand, while considering potential environmental and socioeconomic impacts.

The general goals and objectives addressed by an airport master plan include the following:

- Provide a framework for long-range planning
- Graphically present preferred airport development concepts
- Define, in general terms, the purpose and need for development projects
- Identify facility requirements for all airport users
- Evaluate alternative solutions to meet the facility needs
- Comply with applicable FAA requirements
- Enable the airport to achieve its mission
- Assure compatible land use development
- Support the financial health of one of a city's most powerful economic engines

A successful master plan includes the following characteristics:

- ***Financially feasible:*** The phasing of the plan's capital projects should be aligned with identified need and the ability to secure available funding.
- ***Environmentally compatible:*** The plan should minimize potential environmental impacts.
- ***Balanced:*** The plan should maintain a balance between airport development needs and community impacts.
- ***Technically sound:*** The plan should comply with federal, state, and local requirements, and the capital projects should be able to be constructed efficiently and cost-effectively.
- ***Responsive:*** The plan should address the physical and operational needs of stakeholders.
- ***Flexible:*** The plan should consider changes in industry dynamics which will enable the entity that owns and manages the airport (at Barrow, this is the Alaska Department of Transportation & Public Facilities [ADOT&PF]) to be responsive.

The master plan process provides a blueprint for the future. The plan is just that, a plan, and will only be implemented as warranted by actual activity. The recommendations contained in a master plan are contingent upon further environmental study and financial feasibility.

Funding for the Barrow Airport Master Plan Update is being provided through an Airport Improvement Program (AIP) grant from the Federal Aviation Administration (FAA).

1.1.1 Issues Barrow Airport's Master Plan Must Address

Relevant issues were identified during the initial phase of the project. Discussions were held with the airport users, including air taxi and commercial operators and lease lot owners, as well as Barrow businesses and residents. Site inspections were conducted and previous airport studies reviewed. Comments came primarily through personal telephone conversations, e-mail correspondence, public meetings, and responses to questionnaires. Chapter 8 contains a summary of the public involvement program.

The issues to be addressed at Barrow Airport (BRW) include:

- Airport development south of the runway
- Proposed U.S. Coast Guard (USCG) and Department of Military and Veterans Affairs (DMVA) facilities
- Community expansion
- Increasing demand for lease lots
- Changing fleet mix
- Congestion on Ahkovak Street, just north of the airport
- Highest and best use of airport land

1.2 Barrow

Situated on the shores of the Chukchi Sea, the City of Barrow, population 4,974, is the northernmost city in the United States. Barrow has been inhabited since 500 A.D. During the late nineteenth century, commercial whalers set up a station in Barrow, and in the 1940s and 1950s, the US military installed a radar station and research center north of town.

The community has experienced net population growth since 2007 after several years of flat or declining population (Figure 1-1).

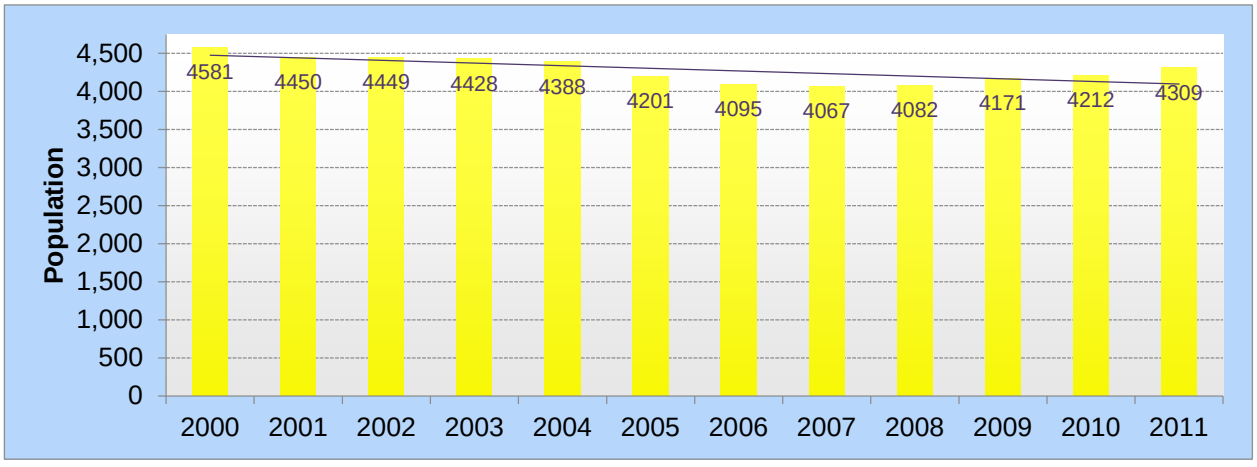

Figure 1-1 – Historic Barrow Population Estimates
Source: ADOL&WD (2013b) and Northern Economics, Inc. analysis

Due to its location, Barrow has seen several prominent aviation pioneers and explorers pass through:

- Roald Amundsen, 1926 blimp flight to the North Pole
- Ben Eielson, 1928 trans-arctic flight
- Charles and Anne Lindbergh, 1931 Orient surveying expedition

Today, Barrow is the supply, service, education, government, and transportation center of its region. It is the seat of government for the North Slope Borough (NSB). Incorporated in 1972, the NSB includes eight villages and over 89,000 square miles of land, making it the largest municipal subdivision in the United States. Likewise, Barrow is the corporate headquarters for the Arctic Slope Regional Corporation, the regional native corporation established under the Alaska Native Claims Settlement Act (ANCSA) of 1971. The ANCSA village corporation, Ukpeagvik Inupiat Corporation (UIC), as well as the regional native non-profit corporation, Arctic Slope Native Association, is also headquartered in Barrow.

Barrow's location and existing infrastructure have made it a hub of arctic research, and the Barrow Arctic Science Consortium provides research facilities and field logistics for visiting scientists. Barrow is also seeing increased offshore oil and gas exploration activity in the Chukchi Sea.

1.2.1 Transportation

Barrow is the transportation hub for villages in the northwest Arctic, providing air links to the communities of Atqasuk, Wainwright, Point Lay, and Nuiqsut. Several air carriers provide scheduled service to Barrow from the outlying communities and the population centers of Fairbanks and Anchorage.

Marine transportation of goods to Barrow is limited to ice-free months in the summer. Barges land at a location north of town.

1.3 Barrow Airport (BRW)

The Barrow airfield was originally constructed in 1964 as a dirt and gravel strip long enough to accommodate small aircraft. The timeline below highlights milestones in the airport's history.

1960 Gravel runway construction begins

1964 Gravel runway completed (5,000 feet x 150 feet)

1968 Runway extended to 6,500 feet and paved

1974 Apron expanded

1983 Runway resurfaced; eastern end painted white to reduce permafrost thaw

2003 Expansion of gravel apron between Taxiways B and C

2012 Major runway reconstruction completed

The current configuration of the airport was completed in 2012. Improvements at this time included a new rotating beacon and localizer and a shift of the runway 210 feet south to accommodate required safety areas.

The Barrow Airport has supported regional oil and gas exploration and development throughout most of its existence. In 2012, Royal Dutch Shell began using the airport to transfer crews to offshore exploratory drilling platforms. Other oil and gas companies may begin offshore exploration as soon as 2014; however, this is subject to change.

The USCG is considering this airport as a seasonal base of operations to monitor arctic marine traffic and offshore oil and gas exploration.