CHAPTER 1: INTRODUCTION

Purpose and Scope

The information presented in this report represents the study findings for the 2016 Ronan Airport Master Plan prepared for the City of Ronan and Lake County, the airport owners. Airport Master Plans are prepared in accordance with Federal Aviation Administration (FAA) Advisory Circular (AC) 150/5070-6B, *Airport Master Plans*. This project was funded in part by the FAA under grant number AIP 3-30-0065-011-2016.

This Airport Master Plan for the Ronan Airport (7S0) will serve as an updated guide identifying future development necessary to accommodate existing and future aviation demands. The airport's current and forecasted safety, capacity and compatibility needs are addressed in this study.

The scope of the study was developed by the Lake County Airport Board and Kadrmas, Lee & Jackson (KLJ) in cooperation with FAA officials to identify the specific needs and objectives of the airport owner. The scope includes work tasks with the purpose of documenting existing conditions, forecasting future aviation activity levels, identifying future facility requirements, formulating and evaluating development alternatives, preparing implementation plans and engaging the general public and other government agencies. Recommendations will be made for improvements that are triggered by safety requirements or demand thresholds.

The project received notice to proceed in May 2016. The baseline project data is from inventory efforts completed in June/July 2016. Data from 2015 was used to establish a baseline of existing airport information.

Background

The Ronan Airport was started on June 2, 1947 by the Ronan City council. The airport is owned by the City of Ronan and Lake County and is part of the FAA's national airports system. The Ronan Airport has one paved runway. Runway 16/34 is a 4,800 x 75 foot asphalt runway with pavement strength of 20,000 pounds single-wheel gear (SWG). Additional airside facilities include the taxiway system that provides access to various landside areas. Runway 16/34 has a full-length parallel taxiway located on the west side of the runway which is designated as Taxiway "A." The function of the parallel taxiway is supported by one (1) connector taxiway, designated as Taxiway "B", providing the ability for landing aircraft to exit the runway at the apron area, providing access to aircraft parking and private hangars. The aircraft parking apron is located midfield, on the west side of the airport.

Planning Considerations

Planning considerations for an airport master plan are features, elements or events that should be evaluated because they have the potential to affect the airport facility over the long term.

Previous Planning Study

The last planning study for 7S0 was completed in 2007 which included an Airport Layout Plan (ALP) update. There has never been an airport master plan, rather simple airport narratives have been completed. The Master Plan study is needed at this time to identify a strategy to best address aviation and community needs within today's regulatory environment. Typically, planning studies are updated every 7-10 years and address forecasted needs for the next 20 years.

Local Considerations

The airport has several local considerations that need to be addressed in order to craft a usable plan for 7S0. These can be grouped into three categories; 1) Safety/Standards, 2) Demand/Capacity and 3) Pavement/Preservation.

SAFETY/STANDARDS

- **Land Use & Airspace Compatibility** – The airport owner is responsible for limiting development and height of objects near airports to maintain compatibility with airport operations. This helps provide a safe operating environment. Any proposed improvements to the runways will need to be compatible with current State and FAA standards. This study should provide the framework or the airport to meet compatibility standards.
- **Crosswind Runway Disposition** – Although shown in the 2007 ALP Study, Runway 3-21 has not been built, determining whether or not the airport truly needs this runway is a focal point of this study.

DEMAND/CAPACITY

- **Critical Design Aircraft/Runway Length** – 7S0 has a primary runway length of 4,800 feet. The airport has experienced recent aircraft use by aircraft needing longer runway length. These aircraft, or upgraded aircraft, supporting local businesses and/or used to help area fires may trigger the need for a runway extension. The aircraft type(s) operating at 7S0 should be quantified to establish existing and future FAA design criteria. The runway length needs of these "critical design" aircraft should be evaluated to determine if and when an extension may be needed.
- **Runway Approaches/Navigational Aids** – The increase in corporate aircraft operations requires the airport to be accessed in all-weather conditions. Improving access benefits the users but it may also require significant investment and trigger new on- and off-airport land use compatibility standards. This study should review flight operations and weather conditions to identify the need, costs and benefits of upgrading primary runway approaches and navigational aids.

PAVEMENT/PRESERVATION

- **Pavement Preservation Plan** – 7S0 must maintain airport pavements so that they remain usable to accommodate regular use of aircraft operations. Airport pavements should be evaluated to identify estimated schedule and costs for on-going pavement rehabilitation.

Planning Objectives

The City of Ronan and Lake County have authorized an Airport Master Plan. The City of Ronan contracted with KLJ to prepare the Airport Master Plan to examine options for the airport to address planning considerations. These planning considerations include developing and analyzing alternatives and recommending a course of action.

Based on the background and planning considerations, the planning objectives for this study identify the methods used to meet the airport development goals outlined as follows:

- Complete an airport master plan study to current standards identified in FAA AC 150/5070-6B, *Airport Master Plans*, tailored to the specific needs of 7S0.

- Complete an evaluation of the existing social, built and natural environment including identification of critical issues such as tribal lands, historic buildings, or roads that may affect the environmental clearance of future airport development. This could be significant based on the fact that the airport is located on land lying within the jurisdiction of the Confederated Salish & Kootenai Tribes (CS&KT) Reservation.
- Update the aviation demand forecasts to reflect current and projected aviation activity. Identify a critical design aircraft fleet based on local corporate flight operations. Obtain FAA approval on forecasts and critical design aircraft.
- Review aviation activity and airport facility needs of major local businesses who utilize air transportation, including users of the Polson Airport, which is located approximately 10 miles away. The Polson Airport is constrained with no room for development. It also is on tribal land, so it is always going to be under land ownership pressure; potential closure after the current lease is completed.
- Perform a review of the recommended runway length(s) to accommodate corporate flight operations in accordance with FAA AC 150/5325-4B, *Runway Length Requirements for Airport Design*. Analyze the current runway length needs of the design aircraft and evaluate the need to plan for a long-term length greater than 5,000 feet.
- Determine the aeronautical need and feasibility of upgrading the instrument approach procedure and upgrading navigational aids/approach lighting system to primary runway, to maximize the utilization of the runway for corporate flight operations.
- Review the need for a cross-wind runway. Considerations include wind coverage, general aviation area development, runway length, on- and off-airport airspace and land use compatibility.
- Based on aeronautical needs, identify the airport's long-term role within the regional aviation system taking into account State Aviation System Plan and the proximity of the Polson Airport.
- Identify the airport facility requirements including recommended runway length, approach minimums, facility requirements, land use safety zones. Obtain FAA concurrence.
- Review a comprehensive set of reasonable alternatives that meet the aeronautical needs and look to avoid impacts. Analyze reasonable alternatives and document other alternatives considered.
- Analyze the operational, environmental & financial impacts of each reasonable alternative and document the decision making process. Evaluate political and public acceptance. Recommend feasible preferred alternatives for the airfield and terminal area.
- Develop an integrated and phase-able long-term airport development plan that addresses the functional locations and conceptual layouts of facilities such as runways, taxiways, aprons, airport support buildings, parking and general aviation development.
- Identify land use compatibility standards for surrounding land use and airspace. Document a separate Runway Protection Zone (RPZ) analysis which is anticipated to be triggered based on introducing new land uses into the RPZ.
- Incorporate preferred airport development to update the ALP in accordance with FAA Standard Operating Procedure 2.00 and State standards.
- For the preferred airport development plan, establish a realistic project implementation schedule/phasing plan and identify triggering events for implementation, particularly the short-term capital improvement program.

- Propose an achievable financial plan to support the implementation schedule, including grouping projects to better compete for FAA funding. Update the Capital Improvement Plan (CIP).
- Identify critical environmental conditions and subsequent environmental evaluations that may be required before a proposed project is approved.
- Assist the airport owner in developing stakeholder consensus on the airport development plan(s) through the execution of a public involvement program. Provide an opportunity for the public to review project documents and provide comments through the Lake County airport website, and at a project open house meeting. This could also involve pilot and tenant surveys which will show needed development –runway length and additional buildings.
- Throughout the process, engage a Master Plan Advisory Group (MPAG) made up of local stakeholders and agency representatives to help provide direction and feedback in making planning decisions.
- Engage FAA and MTDOT Office of Aeronautics at several key points in the project including conducting separate agency review meetings and coordination efforts.
- Complete a Solid Waste Management Plan in accordance with FAA standards.
- Perform a Wildlife Hazard Site Visit (WHSV) to evaluate existing wildlife hazards on and near the airport in accordance with FAA AC 150/5200-33B standards and other current FAA guidance. Complete a Wildlife Hazard Management Plan (WHMP) to identify action items. This task is recommended by the FAA in part based on a previously documented airport wildlife strike at 7S0.
- Research airport property ownership and encumbrances and document in an updated the Exhibit A/Airport Property Map to FAA Standard Operating Procedure 3.00. Incorporate planned future airport property acquisitions.
- Identify alternatives for relocation of North Crow Road and coordinate with Tribal and County officials regarding potential issues and concerns with road relocation.
- Coordinate with the CS&KT Tribes during the planning process.
- Coordinate with Tribal Fire Base on development alternatives for Tribal Fire Base land adjacent to the Airport. Assist Sponsor with preparation of a Memorandum of Understanding with the Tribal Fire Base for planning services for the Tribe and assist with any "through the fence" airport use requirements including a "Through-the-Fence" Agreement.
- Complete Class I/II/III Cultural Resource Inventory as part of this master planning effort.
- Survey safety-critical and other airport data and submit to FAA Airports GIS debase in conformance with FAA requirements.

Master Plan Process

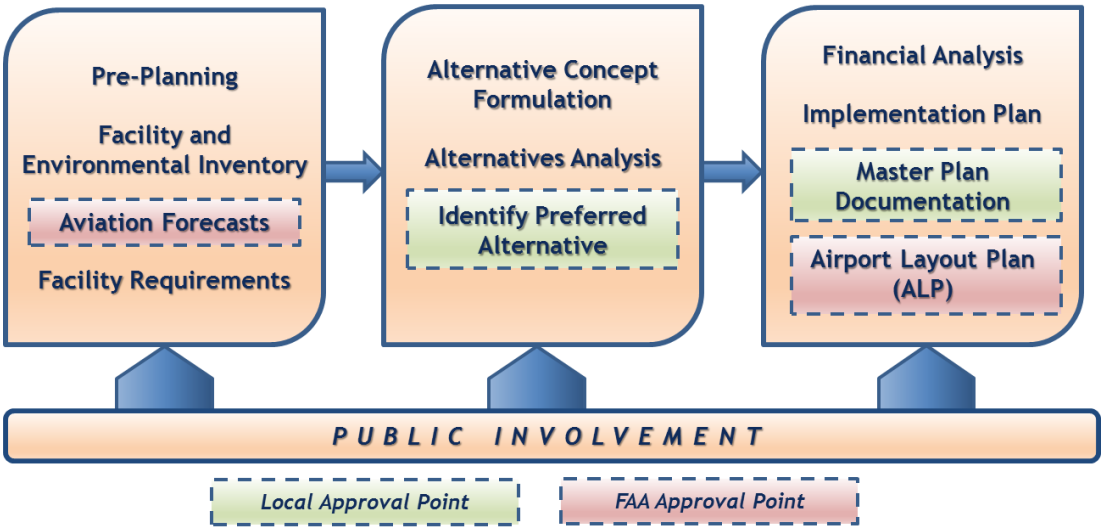
Guidelines for completing a Master Plan are set forth in FAA Advisory Circular 150/5070-6B. Each master plan study scope and level of effort is customized to fit each individual airport's needs and address critical issues.

The Airport Master Planning process involves several coordinated steps. The master plan study for 7S0 consists of the following elements:

- **Pre-Planning** – Airport development concerns are identified and planning objectives prepared to address these issues. An overall vision for the study is formulated that will guide the process.

- **Inventory of Existing Conditions** – Overview of airport setting and environment; infrastructure and assets which includes airside, landside and support facilities; airspace, navigational aids and airport access.
- **Forecast of Aviation Demand** – Using established forecasting methods, estimate current and project future airport activity for general aviation, air cargo, and passenger enplanements.
- **Demand/Capacity Analysis and Facility Requirements** – Compare the existing capacity with the future demand and identify the facility requirements to satisfy the aviation safety, capacity and compatibility needs.
- **Alternatives Development and Evaluation** – Identify and evaluates options considering both on-airport and off-airport impacts consistent with the study goals and objectives. A preferred alternative is selected.
- **Environmental Overview** – Provide an overview of anticipated environmental impacts as part of the development of alternatives.
- **Implementation Plan** – Provide a comprehensive plan for implementation of the preferred alternative including project triggers, sequencing, and cost estimates.
- **Land Use Compatibility** – Complete a comprehensive review of land surrounding the airport for potential uses that are incompatible with safe airport operations and provide mitigation recommendations.
- **Airport Layout Plan** – Document the existing and planned airport facilities through a set of drawings approved by the airport sponsor, state and FAA.
- **Stakeholder and Public Involvement** – Prepare and execute a plan to engage important airport stakeholder and the public throughout the study to gather their input and address their concerns.

Exhibit 1-1 – Airport Master Planning Process



Source: KLJ

During this study process a separate FAA Aeronautical Survey was completed. The data collected in this survey was used to prepare an electronic ALP drawing set for FAA review and approval. An updated

Exhibit "A"/Airport Property Map and Wildlife Study to meet current FAA guidelines was also completed.

Study Documentation & Approvals

The Master Plan was divided into chapters of information to document airport planning data, analysis, findings and recommendation of the study. The report chapters included in the narrative report are the following:

- Chapter 1 – Introduction
- Chapter 2 – Inventory
- Chapter 3 – Aviation Forecasts
- Chapter 4 – Facility Requirements
- Chapter 5 – Alternatives Analysis
- Chapter 6 – Environmental & Land Use Compatibility
- Chapter 7 – Implementation & Financial Feasibility

Each narrative report chapter was prepared separately and distributed to the Lake County Joint Airport Board for review, after the Advisory Group had reviewed and made comment on. After the airport owner's review, each draft chapter findings were made available to key airport stakeholders including the State and FAA for input prior to a final review and approval by the airport owner. Each approved final draft chapter was then published on a dedicated project website for public review.

In addition, an Executive Summary report has been prepared at the end of the master plan study to concisely document the recommendations of the study.

The Master Plan was adopted by the Lake County and the City of Ronan on [FUTURE DATE]. The ALP was submitted to the State and FAA for review and approval on [FUTURE DATE].

Master Plan Format

The required and recommended contents of Airport Master Plans are detailed per FAA standards. Effective airport master plans are based on the analysis of significant amounts of data, and many airport master plans typically present not only the planning conclusions, but all data and accompanying analysis in considerable detail.

This Master Plan presents data to support the plan in a series of appendices. As the reader moves through the narrative descriptions, there are references to specific appendices to provide additional background details and information. In addition, internet hyperlinks are included to reference documents that are current as of the time of this report.

Public Involvement

Public involvement is a key component to the successful development of an Airport Master Plan study. The purpose is to encourage information sharing and feedback from airport stakeholders including the airport owner, airport users/tenants, local government officials, resource agencies, elected and appointed officials and the general public. Public involvement provides valuable input to assist the airport owner in decision making and develop consensus on study conclusions.

A Master Plan Advisory Group (MPAG) was established to provide input throughout the life of the study. A listing of individuals who participated on the MPAG is located in **Appendix X: Public Involvement**. The purpose of the MPAG was to facilitate group discussion and feedback from different stakeholders

groups, providing recommendations to the airport owner. MPAG members represented the following stakeholder groups:

- Airport Management
- Lake County Commissioners
- Confederated Salish & Kootenai Tribes
- Ronan Airport Users/Tenants
- Local Concerned Citizens

MPAG members met at four points throughout the study to discuss technical elements and provide direct feedback. Members also received copies of draft study documentation for review and comment. This input assisted the City of Ronan/Lake County with study decision making.

Information has been uploaded to the Lake County Airports website (http://lakecomtairports.com/). Draft study documents were posted progressively and made available for review. An online comment form ran throughout the life of the project to provide feedback directly to the project team.

A Public Open House was held at two points during the master plan study; introduction/inventory (July 19, 2016) and forecasts/facility requirements (DATE). An Open House provided an opportunity for the airport owner and its representatives to share information on the study and solicit feedback from the public. [SUMMARIZE PUBLIC FEEDBACK AT END OF STUDY]

See **Appendix X: Public Involvement** for other information including copies of public involvement meeting agendas, attendees, presentations and summaries.

Conclusion

This Airport Master Plan for the Ronan Airport provides the City of Ronan/Lake County with a usable guidance document to assist with decision making with airport capital improvements to meet aviation demands for the foreseeable future. As with any planning study, assumptions made are subject to change due to unpredictable internal and external events. For this reason, this study should be reviewed periodically to verify project scope and triggering events are still valid to meet the airport need.