

McMinnville Municipal Airport  
Airport Layout Plan Report

Chapter One

Introduction and Conclusions



## CHAPTER ONE INTRODUCTION

The City of McMinnville, in cooperation with the Oregon Department of Aviation (ODA), is updating the Master Plan and Airport Layout Plan (ALP) for McMinnville Municipal Airport. The purpose of the study is to define the current, short-term and long-term needs of the airport. The 2004-2023 Airport Layout Plan Report will replace the previous airport master plan, completed in 1989.<sup>1</sup> Prior master plan recommendations will be reviewed and revised as necessary, to reflect current conditions and any changes in activity, utilization, or facility development that may affect future demand for aviation facilities.

Funding for the ALP project was provided through a Federal Aviation Administration (FAA) Airport Improvement Program grant (90%) and local match (10%) from The City of McMinnville. Overall project coordination was provided by the Oregon Department of Aviation through administration of a multiple airport layout plan grant.

The primary objective of the Airport Layout Plan Report is to identify current and future facility needs and the improvements necessary to maintain a safe and efficient airport that is economically, environmentally, and socially sustainable. The Airport Layout Plan Report will:

- *Examine previous recommendations and development alternatives as appropriate to meet the current and projected airport facility needs;*
- *Determine current and future activity and facility requirements;*
- *Update the airport layout plan, airspace plan, and land-use plan for the airport and its surrounding areas; and*
- *Schedule priorities of improvements and estimate development costs for the 20-year planning period.*

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<sup>1</sup> McMinnville Municipal Airport - Master Plan Update 1989-2009, W&H Pacific (1989).



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## OVERVIEW

McMinnville Municipal Airport (MMV) is owned and operated by the City of McMinnville, Oregon and is located in Yamhill County, Oregon. McMinnville Municipal is the only airport located in Yamhill County that is eligible for federal funding through the National Plan of Integrated Airport Systems (NPIAS), administered by the FAA. NPIAS airports are eligible for federal funding of improvements through FAA programs such as the current Airport Improvement Program (AIP). The FAA requires that all NPIAS airports periodically update their airport plans to maintain effective long-term planning. This project will enable the City to meet the FAA's requirement to maintain an up-to-date plan for their airport.

MMV is included in Oregon's "Core System of Airports" as defined in the Oregon Aviation Plan (OAP).<sup>2</sup> Core system airports are defined as having "a significant role in the statewide aviation system." MMV is included in the "Business/High General Aviation Airport" category based on its current functional role. Business/High Activity airports typically accommodate corporate aviation activity, including business jets, in addition to a wide range of general aviation users. The OAP-defined facility minimum standards for Business/High Activity GA airports reflect the need to provide all-weather capabilities, instrumentation, a runway-taxiway system and services capable of accommodating a wide variety of aircraft activity. Business/High Activity GA airports are significant components in the statewide transportation system and generate both direct (employment, etc.) and indirect economic benefits for the local community or region through commercial-related aviation businesses and other non-aviation businesses that rely directly on general or business aviation.

Local airport activity includes business and general aviation users, commercial glider operations, and visitors to the local community and surrounding area. The development of the Yamhill County's wine industry has significantly increased local tourism, which has in turn contributed to increased use of the airport as a critical business transportation facility.

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<sup>2</sup> Oregon Aviation Plan (Dye Management/Century West), © Oregon Department of Transportation 2000.



Evergreen Aviation International, an international aviation services firm, is based in McMinnville, with its corporate headquarters complex located immediately adjacent to the north side of MMV. Evergreen's aviation facilities (hangar, apron) are accessed by a single taxiway that enters the airport near the west end of the terminal area.

Evergreen is a diversified corporation with a variety of aviation related business lines (aircraft charter, scheduled air cargo, aircraft ground services, aircraft maintenance, etc.) in addition to local agricultural operations (nursery, orchards, crops, etc.). The Evergreen Aviation Museum and The Captain Michael King Smith Education Institute are located adjacent to the airport on the north side of Highway 18. The museum's collection of historic aircraft, including the "Spruce Goose" and the recently acquired Lockheed SR-71 "Blackbird" has become a prime destination for visitors to the new 120,000 square foot facility. Evergreen International is one of McMinnville's leading employers, currently providing approximately 600 jobs in the local community. Evergreen is also recognized as one of Oregon's leading corporate citizens, providing substantial financial support for a wide range of causes or events.

The FAA's McMinnville Flight Service Station (FSS), which provides remote flight advisory services throughout Oregon, is located on the airport. As an automated facility, the FSS does not require aircraft access from the airfield.

## **PUBLIC INVOLVEMENT**

The public involvement element of the planning process provides opportunities for all interested individuals, organizations, or groups to participate in the project. A list of stakeholders was developed for the project, which included airport users, local citizens, businesses, and local, state and federal government agencies, and community leaders.

At the project kickoff, a Joint Planning Conference (JPC) was held for agencies and organizations with a specific interest or responsibility (land use, environmental, natural resources, transportation, etc.) associated with the airport or its vicinity. The purpose of the JPC was to identify any concerns or issues, which need to be addressed as part of this airport layout plan update. The JPC provided valuable information that is being used in formulating the plan.

A planning advisory committee (PAC) was formed to assist the Consultant and City in developing the updated plan. The PAC reviewed and commented on draft work products and provided local knowledge and expertise to the planning process. PAC meetings were held at key points during the study in conjunction with public informational meetings.

The Draft Report contained the entire work effort and reflected the input provided by all participants in the planning process. Following a period of review, all public and agency comments received were integrated into the Final Airport Layout Plan Report and drawing set.



## AIRPORT LAYOUT PLAN REPORT CONCLUSIONS

1. McMinnville Municipal Airport (MMV) is owned and operated by the City of McMinnville, Oregon. The airport was originally constructed in 1942-43 as a national defense project.
2. MMV is included in the National Plan of Integrated Airport System (NPIAS), making it eligible for federal funding through the Federal Aviation Administration (FAA).
3. MMV is categorized as a “Business/High Activity General Aviation Airport” in the 2000 Oregon Aviation Plan and is included in Oregon’s core system of airports, which denotes its significance in Oregon’s aviation system.
4. MMV is recognized as one of the northwest’s premier glider training facilities, with currently more than twenty locally based sailplanes/gliders.
5. MMV has two paved runways (4/22 and 17/35). Runway 4/22 is served by a full-length parallel taxiway. An access taxiway extends from Runway 4/22 to the end of Runway



- 35; the Runway 17 end is accessed from the Runway 4/22 parallel taxiway by crossing the runway at the 22 end.
6. Runway 4/22 has high intensity runway edge lighting (HIRL), lighted distance remaining signs and precision instrument runway markings. Runway 17/35 is unlighted and has basic (visual) markings.
  7. Runway 22 is equipped with an instrument landing system (ILS) and a medium intensity approach light system (MALSL). Runway 4 is equipped with runway end identifier lights (REIL). Runways 4 and 22 are also equipped with precision approach path indicators (PAPI).
  8. The 1989 Airport Layout Plan (ALP) indicated that the “existing” airport reference code (ARC) was B-II, which is consistent with multi-engine or small business jet aircraft. The ALP identified the “future” ARC as D-III, which includes transport category aircraft.
  9. Both runways currently have a pavement strength rating of 40,000 pounds for aircraft with single wheel landing gear configurations, 50,000 pounds for dual wheel landing gear, and 80,000 pounds for aircraft with dual tandem landing gear.
  10. Landside facilities (FBO, fuel, aircraft parking apron, hangars, etc.) are located on the north side of Runway 4/22. The airport’s glider operations are located on the east side of Runway 17/35.
  11. The airport operates under day and night visual flight rules (VFR) and instrument flight rules (IFR). The airport currently has a precision instrument approach to Runway 22 and two non-precision approaches (with GPS overlays).
  12. The airport has an automated surface observing system (ASOS) located on site.
  13. Aviation gasoline (AVGAS), jet fuel, oxygen, and major airframe and power plant maintenance services are available at the airport.
  14. The 1989 Airport Master Plan indicated that the airport consisted of approximately 710 acres, current information indicates that the airport consists of 673 acres.
  15. The majority of McMinnville Municipal Airport is located entirely within the City of McMinnville’s city limits and Urban Growth Boundary (UGB), in the General Industrial (M-2) Zone. The extreme northeast corner of airport property, in the vicinity of the intersection of Oregon State Highway 18 and Cruickshank Road, is outside the city limits



and UGB and is subject to Yamhill County's zoning (agricultural) jurisdiction. The City's M-2 Zone allows airports as an outright permitted use.

16. The most recent estimate of air traffic activity generated through the ODA Acoustical Counting Program is for 1999 (50,564 annual operations). The FAA Form 5010 Airport Record Form (10/02) lists 113 based aircraft at MMV, however, the FAA Terminal Area Forecast (TAF) lists 140 based aircraft in the most recent historic estimate (2001).
17. Evergreen Aviation International maintains apron and hangar facilities on their property with a single taxiway connection to the airfield, west of the terminal apron. Evergreen currently bases a Gulfstream IV business jet at MMV, in addition to a variety of fixed wing and rotor aircraft.
18. The Evergreen Air Museum and The Captain Michael King Smith Education Institute is located adjacent to MMV on the north side of Highway 18. The facilities consist of a new 120,000 square foot building and a large collection of rare historic aircraft.
19. Galen McBee Airport Park is located near the northwest corner of the airport has walking trails, benches, and bridges located along the drainage that runs into the Yamhill River, north and roughly parallel to the west end of Runway 4/22. The park is dedicated to the former airport manager and parks director who served the City of McMinnville for many years.
20. Surface access to MMV is provided on the north side of the airport via Cirrus Avenue, which connects directly to Highway 18. Cruickshank Road, a county road located near the east end of the airport, provides access to the glider staging area located on the east side of Runway 17/35.
21. Limited water service pressure at the airport resulted in Fire Marshall moratorium on new building construction when this planning project began. However, water system upgrade project was completed in 2004 that now provides adequate system pressure to service new airport buildings and eliminates the development constraint.



## AIRPORT LAYOUT PLAN REPORT RECOMMENDATIONS

The recommendations of previous planning efforts were examined and revalidated or modified as appropriate based on current considerations, FAA-approved activity forecasts and current FAA design standards:

1. A regular schedule of pavement maintenance (vegetation control, crack filling, slurry seals, patching, etc.) should be conducted on airfield pavements to maximize the useful life and optimize life cycle maintenance expenditures. Continued participation in the Pavement Maintenance and Management Program (PMMP), currently administered by the Oregon Department of Aviation (ODA), is recommended.
2. Current and future design standards for Runway 4/22 are based on FAA airport reference code (ARC) D-II; ARC B-II is recommended for Runway 17/35.
3. Expansion of the outer section of the terminal apron is recommended to provide additional parking for itinerant aircraft, particularly business class turboprop and jet aircraft, within the limits of the runway primary surface and transitional surface clearances. Existing light aircraft tiedown positions that conflict with these surfaces should be relocated or reconfigured as part of a future expansion or resurfacing project.
4. The existing airport terminal/FBO building should be expanded/replaced based on the operational needs of the airport. A terminal building expansion reserve, reconfigured vehicle parking and reconfigured terminal area access road are depicted on the airport layout plan.
5. Taxiway D is recommended for closure and replacement with a new infield taxiway and partial length west-side parallel taxiway for Runway 17/35.
6. Runway 17/35 is recommended for reconstruction early in the current planning period due to deteriorated pavement condition. As depicted on the airport layout plan, Runway 17/35 will be reconstructed at a dimension of 4430 by 75 feet.
7. Acquisition of approximately 12 acres within the future runway (35) protection zone (RPZ) is recommended to meet FAA RPZ clearance and control guidelines.
8. Lighting Runway 17/35 is recommended to increase day/night operational capabilities and safety. Medium-intensity runway edge lights (MIRL), threshold lighting, a lighted



- wind cone (near Runway 35 end), and visual guidance indicators (VGI) for both runway ends are recommended.
9. The glider staging area located along the east side of Runway 17/35 should be reconfigured to eliminate conflicts with several FAA-defined clearances, including runway object free area, obstacle free zone, primary surface and transitional surface clearances. Increased separation is required between the aircraft parking positions and runway in order to maintain the clearances.
  10. Providing additional taxiway access to the West Hangar Area is recommended early in the planning period due to ongoing hangar construction and the significant increase in aircraft based in this area. The additional access taxiway is recommended to reduce congestion and facilitate safe and efficient aircraft movement between the hangar area and the runway-taxiway system. Widening the existing taxiway to 35 feet (ADG II standard) is also recommended as part of a future resurfacing project.
  11. The existing West Hangar Area should be expanded, as needed, to accommodate future demand for T-hangars and conventional hangars. Additional taxilane connections and site preparation will be required to accommodate new hangars.
  12. The east side of the terminal area is recommended for future development of larger conventional hangars, aircraft apron expansion, and long-term demand for T-hangars.
  13. Vacant or underutilized sites within the existing terminal area are recommended for future apron expansion or development of conventional hangars. In-fill development or redevelopment within established areas will allow the airport to maximize use of available apron, roadways and utilities.
  14. A new internal airport access road is recommended to serve future aviation and related development in the eastern and infield areas of the airport. The access road would extend around the east end of Runway 4/22 (beyond runway safety area) and connect to the existing county road that runs along the airport's eastern boundary.
  15. The area located in the infield between Runway 4/22 and 17/35, south of the new planned infield taxiway and outside the runway visibility zone, is identified as a future "aviation and non-aviation development area." Vehicle access to this development area would be provided along from the county road that runs along the eastern edge of the airport.



16. Fencing should be added along the airport boundary to limit unauthorized human, animal and vehicle access to the airfield. In addition, fencing and electronic (keypad combination) gates should be provided to limit access to new development areas.
17. The City of McMinnville, Yamhill County, and the City of Dayton should ensure that airport overlay zoning reflects the updated boundaries of the FAR Part 77 airspace surfaces defined in this plan and complies fully with Oregon state law (ORS Ch. 836.600-630). The ordinance language and mapping developed and maintained by the individual land use jurisdictions should be consistent to ensure overall compatibility.
18. Yamhill County should ensure that development of rural lands in the vicinity of the airport is compatible with airport activities. Maintaining the Agricultural or Manufacturing zoning in the areas surrounding the airport provides effective land use compatibility with airport operations. Development of new residential areas, or increasing the densities of existing rural residential areas within the boundaries of the protected airspace surfaces of MMV should be discouraged to ensure the long-term viability of the airport.
19. The City of McMinnville should require that applicants for all leases or development proposals involving construction of structures on the airport demonstrate compatibility with the airport's protected airspace surfaces. The applicant should be required to provide all documentation necessary for the sponsor to obtain "no objection" finding by FAA resulting from the review of FAA Form 7460-1 – Notice of Proposed Construction or Alteration, prior to approval of ground leases. Any proposal that receives an objection by FAA should not be approved without first addressing FAA concerns.
20. Local (City or County) planning and building officials should require that applicants for all proposed development within the boundaries of the airport overlay zone (as defined by the updated Airport Airspace Plan) demonstrate a finding of "no objection" by FAA resulting from review of proposed development (FAA Form 7460-1) prior to approval.
21. It is recommended that any proposed changes in land use or zoning within the boundaries of the airport overlay zone be coordinated with the Oregon Department of Aviation (ODA) to ensure consistency with Oregon airport land use guidelines.
22. The City of McMinnville should adopt the Airport Layout Plan Report and drawings in a timely manner to guide airport activities. Yamhill County and the City of McMinnville should also adopt the Airport Layout Plan Report and drawings for incorporation into local comprehensive and transportation planning.



23. An updated Exhibit "A" property plan should be prepared for MMV to update airport property boundaries and acreage in conjunction with any property acquisition. The updated Exhibit "A" should be submitted to FAA for review and approval.
24. The City of McMinnville should initiate the recommended improvements and major maintenance items in a timely manner, requesting funding assistance under FAA and other federal or state funding programs for all eligible capital improvements.

The physical relationship that exists between MMV, the adjacent Evergreen International complex, and the Evergreen Air Museum/Captain Michael King Smith Education Institute creates an extremely valuable asset that should be preserved and enhanced whenever possible for the continued benefit of the entire community. The unique combination of public and private aviation-related investment has resulted in substantial job creation, increased tourism, and significant overall contribution to the local economy.