

# Chapter One Introduction



## Methow Valley State Airport Airport Layout Plan Update

## CHAPTER ONE INTRODUCTION

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### Introduction

The Washington Department of Transportation - Aviation Division (hereafter referred to as WSDOT Aviation) is preparing an updated Airport Layout Plan (ALP) Report and drawing set for Methow Valley State Airport (S52). The project is being conducted in cooperation with the Federal Aviation Administration (FAA), Seattle Airports District Office (ADO).

Funding for the ALP project is provided through an FAA Airport Improvement Program (AIP) grant (95%) with a local match (5%) provided by WSDOT. The AIP is a dedicated fund administered by FAA with the specific purpose of maintaining and improving the nation's public use airports. The AIP is funded exclusively through fees paid by users of general aviation and commercial aviation.

The purpose of the ALP project is to define the current, short-term and long-term needs of the airport through a comprehensive evaluation of conditions and FAA airport planning and design standards. The ALP will provide specific guidance in making the improvements necessary to maintain a safe and efficient airport that is economically, environmentally, and socially sustainable. The ALP Report will:

- *Provide an updated assessment of existing facilities and activity;*
- *Forecast airport activity measures (based aircraft, aircraft operations, etc.) for the current 20-year planning period;*
- *Examine previous ALP recommendations as appropriate, to meet the current and projected airport facility needs, consistent with FAA airport design standards;*

- *Determine current and future facility requirements for both demand-driven development and conformance with FAA design standards.*
- *Update/prepare the airport layout plan, airspace plan, and land-use plan for the airport to reflect updated planning; and*
- *Develop an Airport Capital Improvement Program (ACIP) that will prioritize improvements and estimate project development costs and funding eligibility for the 20-year planning period.*

The most recent FAA-approved ALP for Methow Valley State Airport was completed in 1995.<sup>1</sup> The 1995 ALP and an aerial photograph flown for the project provided historic and current facility information to be integrated into the updated ALP.

## National Airport System

Methow Valley State Airport is included in the National Plan of Integrated Airport Systems (NPIAS). Participation in the NPIAS is limited to public use airports that meet specific FAA activity criteria. NPIAS airports are eligible for federal funding of improvements through FAA programs such as the current Airport Improvement Program (AIP). Currently, there are more than 3,300 NPIAS airports, of which more than 75 percent are general aviation airports similar to Methow Valley State. Three other communities in Okanogan County have airports included in the NPIAS (Omak, Brewster, and Oroville). Airports such as Twisp Municipal and Okanogan Legion Field are not included in the NPIAS and therefore, are not eligible to receive FAA funding.

The FAA has recognized NPIAS airports as being vital to serving the public needs of air transportation. In doing so, the FAA recognizes that access to the nation's air transportation system is not limited to commercial air service. The FAA requires that all NPIAS airports periodically update their airport plans to maintain effective long-term planning. This project will enable WSDOT Aviation to meet the FAA's requirement to maintain an up-to-date plan.

## State Airport System

Methow Valley State Airport is identified as a public-use "General Aviation" airport in the Washington Aviation System Plan.

## Public Involvement

The public involvement element of the planning process provided opportunities for all interested individuals, organizations, or groups to participate in the project. A planning advisory committee

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<sup>1</sup> Airport Layout Plan drawing set (approved by FAA August 24, 1995) W&H Pacific.

(PAC) was formed with members of the local community. The PAC provided local review and input into the planning process. The PAC reviewed and commented on draft work products and provided local knowledge and expertise to the planning process.

At the beginning of the project, a kickoff meeting was held to provide information to interested citizens and allow the PAC, the Consultant, the FAA and WSDOT Aviation to meet and discuss key project issues. Additional PAC meetings will be held at key points during the study in conjunction with public informational meetings.

In addition to the local planning advisory committee meetings, a separate public meeting was held at Sun Mountain Lodge to present the preliminary preferred alternative. The public meeting provided a wide range of comments. An extended public review and comment period was provided with the documents posted on the WSDOT Aviation website.

## Summary of Findings

1. Methow Valley State Airport is owned and operated by the Washington Department of Transportation - Aviation Division.
2. The Airport consists of approximately 90 acres, located approximately three miles southeast of Winthrop and four miles northwest of Twisp.
3. The Airport is included in the National Plan of Integrated Airport System (NPIAS), making it eligible for federal funding through the Federal Aviation Administration (FAA).
4. The Airport has a “General Aviation” service level designation in the Washington State Aviation System Plan.
5. The Airport is home to the North Cascades Smoke Jumper Base, operated by the U.S. Forest Service (USFS). The USFS facilities are located on the east side of the runway, off of airport property. Aviation-related facilities include aircraft parking aprons, helicopter parking pads, and several operations buildings. The complex also includes a large undeveloped area that extends toward Twisp-Winthrop Eastside Road.
6. The Airport has one paved and lighted runway that is oriented in a northwest-southeast direction. The runway (13/31) is 5,049 feet by 75 feet with turnarounds located at both ends.
7. Runway 13/31 does not have standard protected areas at both ends (limited by fence or road).

8. The airfield facilities are capable of accommodating single-engine and multi-engine aircraft weighing more than 12,500 pounds, generally consistent with aircraft included FAA Airport Design Group II (ADG-II). ADG II aircraft have wingspans from 49 feet up to but less than 79 feet.
9. The pavement strength of Runway 13/31 listed in the published Airport/Facility Directory (A/FD) and FAA Airport Record Form (5010-1) is 30,000 pounds for aircraft equipped with single wheel landing gear configurations. This weight bearing capacity is consistent with pavement designs based on large aircraft (greater than 12,500 pounds).
10. Airfield lighting currently includes medium intensity runway edge lighting (MIRL), threshold lights, and a rotating beacon. Pilot directories indicate that both the runway lights and airport beacon are pilot-activated through the common traffic advisory frequency (CTAF) at 122.8 MHz.
11. The Airport operates under day and night visual flight rules (VFR) and does not currently have instrument approach capabilities.
12. The Airport has 24-hour weather observation capabilities with a privately owned Automated Weather Observation System (AWOS – 3)
13. Aviation fuel is not available for sale at the Airport. Privately-owned fuel storage facilities are located off the airport, but reportedly are not currently in use. The aircraft associated with the USFS operations provide their own fuel.
14. The Washington State Long Term Air Transportation Study (LATS) aviation activity forecast, prepared in 2007 estimated base year activity at 2,600 aircraft operations and 9 based aircraft (in 2005). The most recent air traffic data listed on the FAA Airport Record Form (5010-1) is for 2002: 7,650 operations and 9 based aircraft.
15. Public use landside facilities (aircraft parking apron) are located on the west side of Runway 13/31. Hangars are located both on and off airport property (east side of the runway). In Spring 2010 there were a total of nine (9) hangars located at the airport. Additional buildings are located within the smoke jumper complex and other off airport properties that abut the airport on its east side.

## Summary of Recommendations

1. All federally-funded projects are subject to the environmental regulations contained in the National Environmental Policy Act (NEPA), including property acquisition, major facilities rehabilitation, and new construction.

2. A regular schedule of pavement maintenance (vegetation control, crack filling, fog seals, slurry seals, patching, etc.) should be conducted on airfield pavements to maximize the useful life and optimize life cycle maintenance expenditures. Runway and taxiway markings should be periodically repainted to maintain good visibility.
3. Current and future design standards for Runway 13/31 are based on FAA airport reference code (ARC) B-II for “larger-than-utility” runways (per FAR Part 77). Future airspace planning for Runway 13/31 is based on visual approach capabilities. New hangar developments and aircraft parking aprons should be designed to conform to FAA runway, taxilane/taxiway and airspace clearing standards.
4. A reconfiguration of Runway 13/31 is recommended to address several non-standard conditions at both ends of the runway. Runway 13/31 will have displaced thresholds and 20:1 visual obstacle clearance surfaces (OCS) at both ends to improve obstruction clearance for approaching aircraft. Limited runway safety area beyond the ends the runway will reduce available runway lengths for specific aircraft through use of declared distances (takeoff distance available, accelerated-stop distance, takeoff run available, landing distance available). The existing runway length will be maintained (5,049 feet).
5. A partial length parallel taxiway is recommended on the east side of Runway 13/31 at the north end to facilitate aircraft movement and enhance safety.
6. The aircraft turnaround at the end of Runway 31 should be expanded to meet FAA standards for use as an aircraft holding area (outside of the runway OFZ).
7. The existing hangars located on airport property on the east side of the runway (within the runway OFA and OFZ) should be removed or relocated.
8. WSDOT should work with the USFS to evaluate potential relocation of USFS facilities (apron, etc.) outside of the runway OFZ.
9. The west apron will be reconfigured and expanded to increase aircraft parking capacity, improve aircraft circulation within the apron, and meet FAA design standards. The expanded apron capacity appears to be adequate to accommodate projected demand until late in the 20-year planning period.
10. Helicopter parking pads will be constructed on the west side of the runway to accommodate seasonal fire related activity. The parking pads will be constructed of Portland Cement Concrete (PCC) and will also be used by medevac helicopters and other itinerant rotorcraft.
11. The segmented circle, which is located south of the main apron, will be relocated north of the apron to accommodate new helicopter parking.
12. The areas adjacent to the west apron will accommodate construction of several small hangars.

13. Okanogan County should maintain airport overlay zoning based on the FAR Part 77 airspace surfaces (height and hazard) depicted in the updated Airport Layout Plan.
14. Okanogan County should ensure through their comprehensive planning/zoning that development of lands in the vicinity of the airport is compatible with airport activities to the greatest extent possible.
15. It is recommended that any proposed changes in land use or zoning in the vicinity of the airport (within the boundaries of the FAR Part 77 airspace surfaces) be coordinated with WSDOT Aviation Division land use planning staff to ensure consistency with airport land use compatibility guidelines.
16. WSDOT Aviation should require all development proposals involving construction of structures on the airport to complete and submit FAA Form 7460-1 – Notice of Proposed Construction or Alteration, prior to approval of ground leases. Any development proposal that receives an objection by FAA should not be approved without first addressing FAA concerns.
17. Okanogan County planning and building officials should require that applicants for proposed development within the boundaries of the airport’s FAR Part 77 imaginary surfaces (as defined by the Airport Airspace Plan) verify through coordination with the FAA Seattle Airports District Office (ADO) whether submittal of FAA Form 7460-1 is required for their proposal. This determination should be required prior to approval/issuance of building permits, approval of plats, binding site plans, etc. Any development proposal that receives an objection by FAA should not be approved without first addressing FAA concerns.
18. WSDOT Aviation and FAA should approve/adopt the Airport Layout Plan Report and Drawings in a timely manner to guide future airport development.
19. WSDOT Aviation 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.