OREGON AVIATION PLAN AIRPORT SUMMARY
EASTERN OREGON REGIONAL AIRPORT AT PENDLETON

In 2018, the Oregon Department of Aviation (ODA) updated the Oregon Aviation Plan (OAP v6.0) for the state airport system which includes 95 airports, one heliport and one seaplane base. The study area was statewide and considered both commercial service and general aviation airports. Airports outside of Oregon in proximity to the state were considered as well. The study includes Eastern Oregon Regional Airport at Pendleton (PDT or the Airport). This section focuses on the system plan's individual findings and recommendations for this facility as well as documenting the various benefits the Airport provides in Oregon.

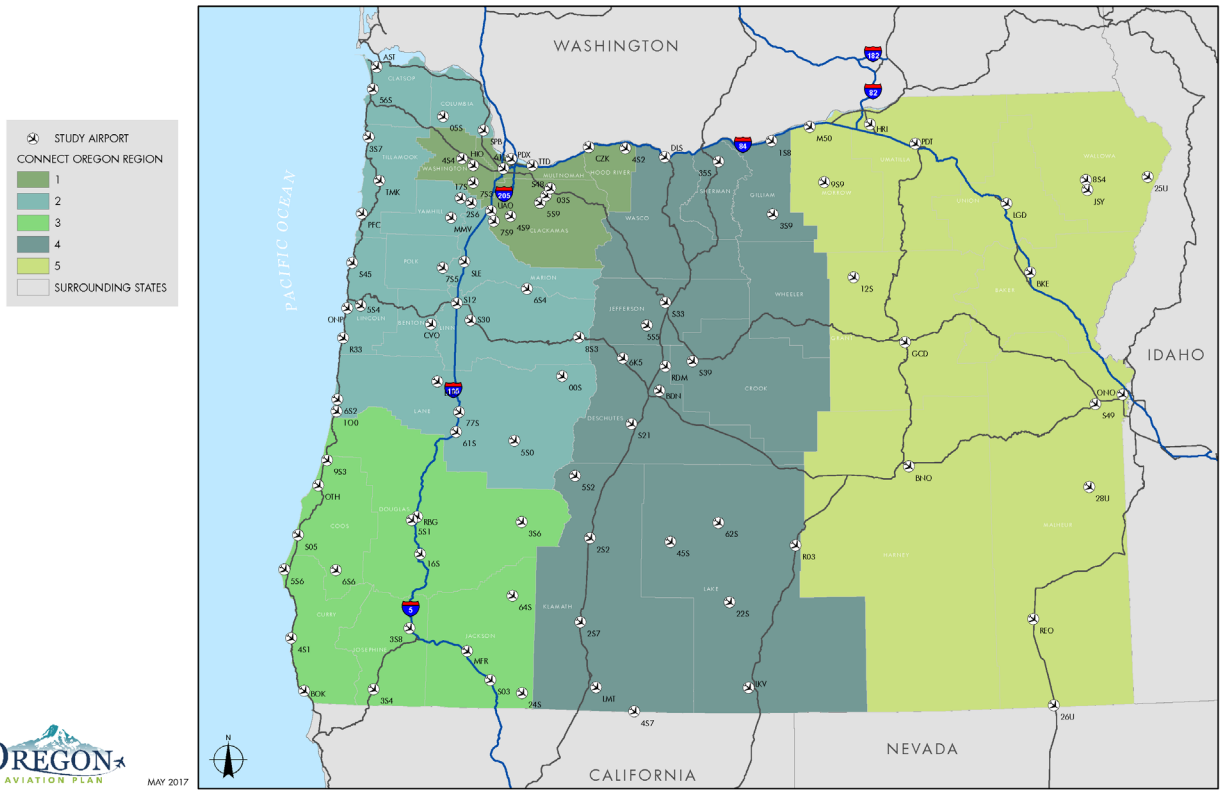
Aviation system plans are top down studies that must be implemented from the bottom up by individual airports. The ultimate success of the plan depends on each airport implementing recommendations from the study and following through on any identified improvement actions. Individual airport improvements will result in the enhancement of overall system performance.

Within the statewide system, the Eastern Oregon Regional Airport at Pendleton has been designated as a Category I – Commercial Service Airport in the 2007 OAP. Within the OAP, these airports support some level of scheduled commercial airline service in addition to supporting a full range of general aviation aircraft activities. Commercial service includes both domestic and international destinations.

Some, but not all of the study airports also have federal role definitions from the FAA. Within FAA's ASSET Study and National Plan of Integrated Airport Systems (NPIAS), the Airport is designated as a Regional General Aviation Airport; this designation signifies the Airport's importance to the federal system of public-use airports. From the economic impacts it provides and the volume of business activity it serves, Eastern Oregon Regional Airport at Pendleton has all the attributes of a Regional General Aviation Airport. Its airfield facilities are in line Regional General Aviation Airport; hence the OAP v6.0 recommends that this Airport maintain this role within the NPIAS.

From a facilities standpoint, the Eastern Oregon Regional Airport at Pendleton meets most of the objectives for an OAP Category I Airport. It is worth noting, however, that the Airport's own capital improvement plan and/or master plan may recommend additional projects that it will be needed over the coming 10 years. The OAP v6.0 also does not identify all maintenance, rehabilitation, and replacement costs that could be incurred by the Airport during this period.

EXISTING OREGON AIRPORT SYSTEM 2018



More information on the OAP can be obtained from the ODA Aviation website at https://www.oregon.gov/aviation/pages/index.aspx. In addition to the complete Technical Report, a statewide Executive Summary was produced to support the OAP. More information on all OAP-related products can be obtained from ODA.

OREGON AIRPORT ROLES/CATEGORIES

ODA's Oregon Aviation Plan was last published in 2007. This update to the OAP re-sets the bar for future system performance by evaluating each airport's facilities and services. Since 2007, a number of Oregon airports have made progress toward meeting various performance measures. As part of this study, airport infrastructure data, aviation activity projections, and population growth in each airport's environs were used to determine whether the airport should be elevated to a higher OAP Category to improve overall system accessibility and performance. The OAP v6.0 also addressed the need for airports to support resiliency efforts related to a potential Cascadia Earthquake and Tsunami Event.

Recommended categories for airports in the Oregon Aviation Plan are shown below.

OAP AIRPORT CATEGORIES
RECOMMENDED OREGON AIRPORT ROLES

Category I	**Commercial Service Airport**: These airports support some level of scheduled commercial airline service in addition to supporting a full range of general aviation aircraft activities. Commercial service includes both domestic and international destinations. Objectives call for a minimum runway length of 6,000 feet.
Category II	**Urban General Aviation Airport**: These airports support all general aviation aircraft and accommodate corporate aviation activity, including piston and turbine engine aircraft, business jets, helicopters, gliders, and other general aviation activity. The most demanding user requirements are business-related. These airports service a large/multi-state geographic region or experience high levels of general aviation activity. The minimum runway length objective for Category II airports is 5,000 feet.
Category III	**Regional General Aviation:** These airports support most twin and single-engine aircraft and may accommodate occasional business jets. These airports support regional transportation needs with a large and often sparsely populated service area. The minimum runway length objective for Category III airports is 4,000 feet.
Category IV	**Local General Aviation Airport:** These airports support primarily single-engine general aviation aircraft but are capable of accommodating smaller twin-engine general aviation aircraft. These airports support local air transportation needs and special-use aviation activities. The minimum runway length objective for Category IV airports is 3,000 feet.
Category V	**Remote Access/Emergency Services (RAES):** These airports support primarily single-engine general aviation aircraft, special-use aviation activities, access to remote areas, or provide emergency service access. These airports should have at least 2,500 feet of runway.

Source: Jviation

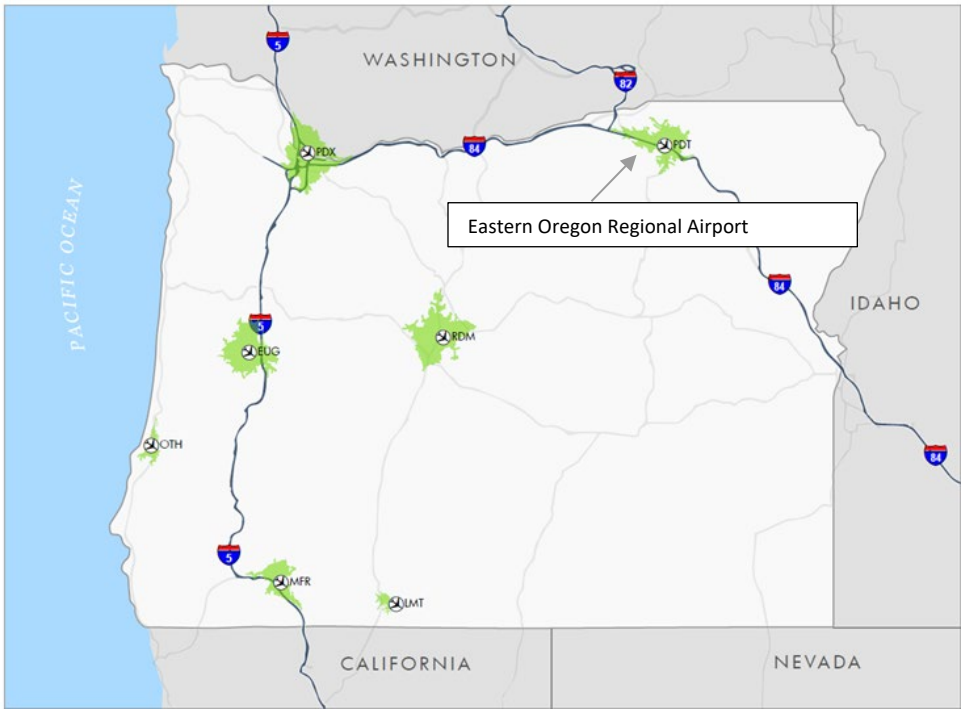
EASTERN OREGON REGIONAL AIRPORT AT PENDLETON OVERVIEW

The City of Pendleton is located in north central Oregon, along Interstate 84 in Umatilla County. Five additional counties (Baker, Union, Grant, Morrow, and Wallowa) make up the Airport's primary market area. The Airport is owned by the City of Pendleton. Eastern Oregon Regional Airport at Pendleton is situated on 2,273 acres and is located three miles northwest of the City. Major employers in the region include the Eastern Oregon Correctional Institution, Pendleton Woolen Mills, St. Anthony Hospital, and Keystone RV Company. Agriculture is also an important part of the local economy. In addition to two conventional runways (6,301 feet; 5,581 feet), the Airport provides a dedicated 2,800-foot UAS airstrip and a full-service UAS operating area with power, water, and dark fiber connections. The Airport is currently renting out 50,000 square feet of space to various companies, many of them UAS businesses. The Airport is part of the Pendleton UAS Range (PUR) which is a partner test site within the University of Alaska led Pan-Pacific UAS Test Range Complex.

As a crucial asset to the region, the Airport accommodates regular air ambulance activity and scheduled air cargo operators on a weekly basis. The Airport is also home to a USFS Air Tanker base. The annual Pendleton Round Up rodeo and surrounding national forests attract numerous tourists. The Airport is classified as a Nonprimary Commercial Service Airport and is supported by the federal Essential Air Service (EAS) program. Boutique Air currently serves the Pendleton market from Portland International. In 2017, the Airport accommodated a total of 13,820 operations and enplaned 5,701 passengers. General aviation accounted for approximately 9,700 operations. Itinerant operations comprise approximately 65 percent of the general aviation traffic. There are 78 based aircraft, including 27 helicopters, stored at the Airport.

Eastern Oregon Regional Airport at Pendleton has three active runways. The Airport's primary runway, Runway 7/25, is oriented in an east-west direction. This precision approach runway measures 6,301 feet in length and 150 feet in width. Runway 7/25 is equipped with HIRL, VASIs, MALSR, and ODALS. Approaches available to the Airport include an ILS approach to Runway 25, a VOR or GPS approach to Runway 7, and a circling NDB or GPS approach. Of the remaining two runways, Runway 11/29 is 5,588 feet long and 140 feet wide, while Runway 16/34 is 4,345 feet long and 75 feet wide. Runway 11/29 is equipped with MIRL, VASIs, and REILs on both ends. The Airport has an air traffic control tower.

30-MINUTE DRIVE TIME SERVICE AREA AND POPULATION
OAP CATEGORY I AIRPORTS



Source: Jviation

Airport roles consider the characteristics of the area the Airport serves. Analysis for the OAP was conducted using a geographic information system (GIS) and a 30-minute drive time for each airport. There are approximately 27,473 residents within a 30-minute drive of PDT and a labor force of approximately 15,438.

Eastern Oregon Regional Airport	
Population	
– **2016 30-minute drive**	27,473
– **2016 Associated city**	16,996
Labor force	
– **2016 30-minute drive**	15,438

Source: US Census Bureau, Jviation Analysis, Oregon Zoomprospector.com, Oregon Population Center – Portland State University

RECOMMENDED ROLE FOR EASTERN OREGON REGIONAL AIRPORT

Each airport's level generally reflects the type of aircraft and customers the airport serves as well as the characteristics of the airport's service area. Eastern Oregon Regional Airport will remain a Category I – Commercial Service Airport within the OAP.

As a Category I airport, the OAP has identified certain facilities and services that should ideally be in place. These objectives are considered the "minimums" to which the Airport should be developed. Based on local needs and other justifications, it is quite possible that the Airport could exceed its minimum development objectives established in the OAP. Eastern Oregon Regional Airport's specific objectives, as they pertain to the Airport's Category I role in the state airport system, are listed below.

OBJECTIVES FOR CATEGORY I – COMMERCIAL SERVICE MINIMUM STANDARD

Airside Facilities

- **Airport ARC:** C-II
- **NPIAS:** Yes
- **Based Aircraft:** Not an Objective
- **Runway orientation:** 95% wind coverage (combined primary/secondary rwy)
- **Runway Pavement Type:** Bituminous, Concrete
- **Runway Pavement Strength:** Varies by Airport*/Design Aircraft
- **Runway length:** Minimum 6,000 feet
- **Runway width:** 100 feet
- **Taxiway:** Full parallel
- **Lighting systems:** MIRL/HIRL/ALS
- **Approach:** Precision w/ vertical guidance
- **Visual Approach Aids:** Both Runway Ends
- **Instrument Approach Aids:** One Runway End
- **Runway Lighting:** MIRL/HIRL/ALS
- **Taxiway Lighting:** MITL/HITL
- **Fencing:** Perimeter; controlled access

General Aviation Facilities

- **Rotating Beacon:** Yes
- **Weather reporting:** AWOS or ASOS
- **Lighted Wind Indicator:** Yes
- **Hangared aircraft storage:** 75% of based aircraft fleet
- **Apron parking/storage:** 75% of Daily Transient
- **Terminal/Building:** Yes
- **Auto parking:** Moderate
- **Cargo:** Small Handling Facility w/ Apron
- **Deicing Facility:** Yes

Services

- **Fuel:** 100 LL (24-hour self-service) & Jet A
- **FBO:** Full Service (normal business hours)
- **Transportation:** Offsite Rental Car, Taxi, etc.
- **Food Service:** Coffee Shop/Deli & Cold Foods
- **Restrooms:** Yes
- **Pilot Lounge:** Yes w/Weather Reporting Station
- **Snow Removal:** Yes
- **Telephone:** Yes

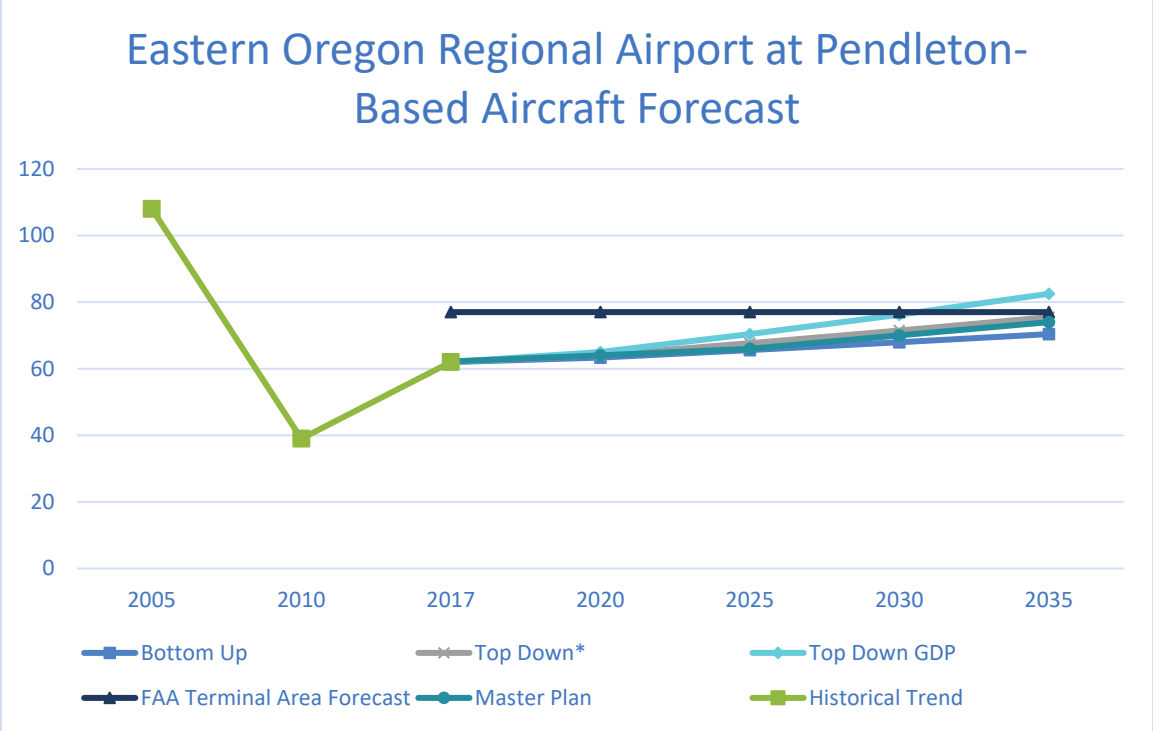
EASTERN OREGON REGIONAL AIRPORT
PROJECTIONS OF GENERAL AVIATION DEMAND

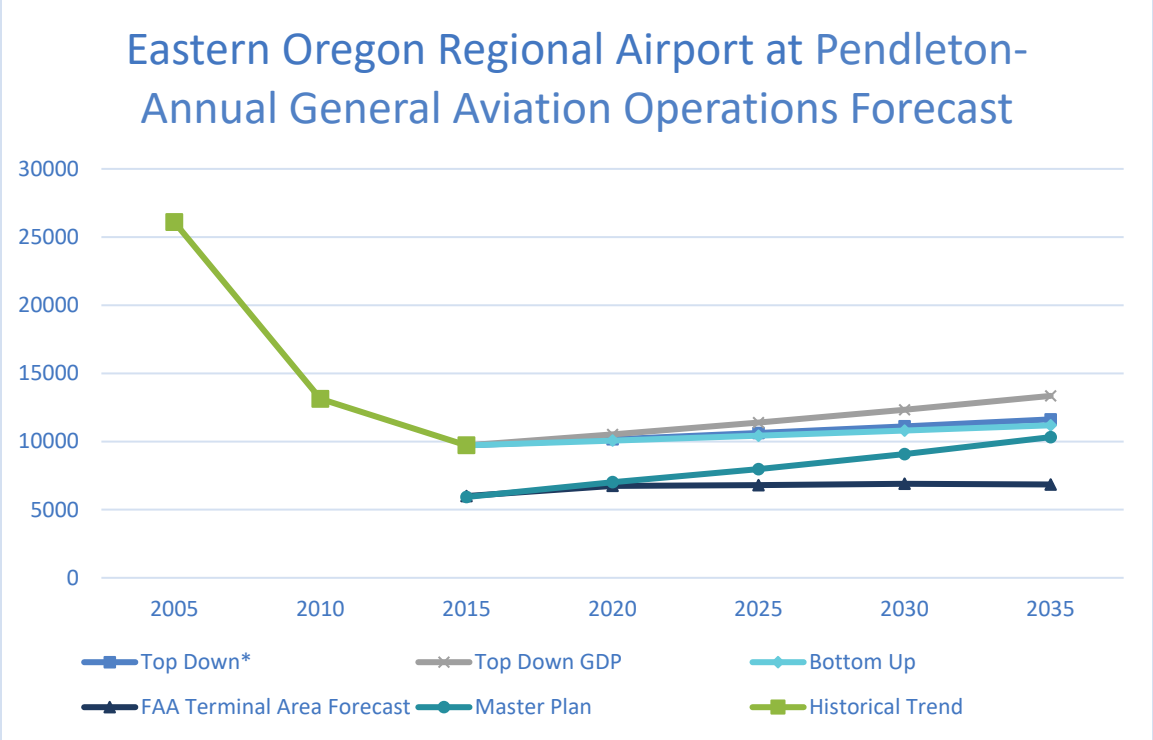
Over the past 10 years, general aviation has experienced a general decline on a nationwide basis and in Oregon. The high cost of acquiring and maintaining a general aviation aircraft, the cost to secure a private pilot's license, competing opportunities for allocation of disposable income, the economic recession, along with significant increases in the cost of aviation fuel, have all contributed to a contraction in general aviation demand.

Recent economic recovery and increased use of general aviation as a tool to improve business efficiency have helped to stabilize the general aviation industry. For most airports in Oregon, however, including Eastern Oregon Regional Airport, anticipated growth in general aviation demand will be modest at best. The two graphs below show projections of based aircraft and annual general aviation operations for PDT as they were developed in the OAP v6.0.

Three based aircraft projection methodologies were developed in this forecast. The bottom-up methodology produced an average annual growth rate of 1.0 percent and the top-down methodology based on historical Per Capita Real GDP produced the highest average annual growth rate, of the three projections, at 1.6 percent. The alternative top-down methodology utilizing FAA Terminal Area Forecast (TAF) projections for NPIAS airports in Oregon produced more moderate growth rate. Comparing the results of the forecasts indicated that the historical Per Capita Real GDP projection had the strongest growth, but was considered to be overly optimistic, since sustaining a 1.6 percent GDP growth rate over the planning period is unlikely. Therefore, the more conservative bottom-up growth rate of 1.1 percent, which is based on FAA TAF growth rates for based aircraft, was chosen as the preferred forecast. Based aircraft at PDT are projected to increase from 62 in 2017 to 75 by 2035.

The results from the three general aviation operations projection methodologies developed in this forecast are compared in the graphs below. The bottom-up methodology produced an average annual growth rate of 1.1 percent while the top-down methodology based on FAA Hours Flown projections produced an average annual growth rate of 0.9 percent. The alternative top-down methodology based on historical GDP growth produced an average annual growth rate of 1.6 percent. The bottom-up growth rate of 0.9 percent was chosen as the preferred growth rate since it is based on FAA national average growth forecasted for hours flown. Annual aircraft operations at PDT are projected to increase from 9,717 to 11,115 by 2035.





Source: FAA TAF, Jviation analysis, PDT airport master plan
* indicates preferred growth rate

EASTERN OREGON REGIONAL AIRPORT ECONOMIC IMPACT UPDATE

Annual economic impacts for 97 study airports were estimated as part of ODA's economic impact research. Total annual economic impacts for the Airport are attributed to one or more of the following four economic activity centers: airport management, airport tenants, average annual capital investment, and spending by visitors who arrive on general aviation aircraft.

This study uses three primary measures to express both statewide and airport-specific annual economic impacts:

- Employment
- Annual Payroll
- Sales/Output (or total annual economic activity)

Direct Impacts: Eastern Oregon Regional Airport is owned and operated by the City of Pendleton. Approximately 2,458 visitors arrived on commercial airlines while general aviation aircraft operations at the Airport accounted for approximately 1,618 visitors who arrived in the area. The direct employment, payroll, and sales/output impacts related to the Airport's tenants were derived from survey data. Visitor impacts were calculated using airport-specific expenditure estimates. Construction expenditures are based on FAA Airport Improvement Records. The total combined direct output stemming from all on-airport aviation-related tenants, capital improvements, and visitor related expenditures was estimated at $2.3 million. On-airport tenants and visitors accounted for nearly 24 direct jobs with an estimated direct payroll of $1.1 million.

EASTERN OREGON REGIONAL AT PENDLETON AIRPORT

	Direct	Indirect/Induced	Total
Employment			
– **Tenant**	16.0	23.3	39.3
– **GA Visitor**	3.8	1.6	5.3
– **CS Visitor**	4.2	1.7	5.9
– **CIP**	0	0	0
Employment Total	***23.9***	***26.6***	***50.6***
Payroll			
– **Tenant**	$803,000	$593,411	$1,396,411
– **GA Visitor**	$127,341	$100,004	$227,346
– **CS Visitor**	$141,255	$110,931	$252,187
– **CIP**	$0	$0	$0
Payroll Total	***$1,071,597***	***$804,346***	***$1,875,943***
Sales/Output			
– **Tenant**	$1,758,000	$1,414,516	$3,172,516
– **GA Visitor**	$186,649	$130,001	$316,650
– **CS Visitor**	$348,299	$255,136	$603,435
– **CIP**	$0	$0	$0
Sales Total	***$2,292,948***	***$1,799,653***	***$4,092,601***

Source: Mead and Hunt, EDR Group, Jviation, IMPLAN econometric package

Multiplier Impacts: Direct on-airport tenant and general aviation visitor impacts also create multiplier impacts throughout Oregon. These benefits are made up of indirect and induced impacts calculated with IMPLAN multipliers. Induced impacts result from employees on the airports and in the hospitality sector off-airport spending their earnings in Oregon while indirect impacts result from on-airport businesses and hospitality sector businesses spending for goods and services in Oregon. The table above presents the Airport's direct, indirect/induced, and total economic impacts for sales/output, payroll, and employment as they relate to all on-airport tenants and all general aviation visitors.

Total Impacts: The total output (including direct and multiplier impacts) stemming from all on-airport tenants, construction, and all general aviation visitors to Eastern Oregon Regional Airport was approximately $4.1 million. Total full-time employment related to all tenants and general aviation visitors, including all multiplier impacts is approximately 51 jobs. A total annual payroll associated with these jobs is estimated at $1.9 million.

MUNICIPALITIES NEAR EASTERN OREGON REGIONAL AIRPORT WITH LAND USE CONTROLS

Having land uses adjacent to airports that are compatible with aircraft operations is imperative from a safety standpoint. Airports that accept state and/or federal grants are obligated to take steps to promote compatible land use and activities in the environs of their airport. For the OAP analysis, airports and their immediate or adjacent municipalities in the environs of the airport were identified. Analysis of each airport's airspace were compared to local jurisdiction boundaries on Google Earth. If a jurisdiction was entirely or partly under the airport's airspace local zoning ordinances were reviewed. County land use ordinances related to airports and height restrictions were also analyzed.

Research was undertaken for municipalities identified during the OAP to determine if the municipalities are taking steps to promote compatible land use and protect the operating environments for airports. Municipalities near Oregon airports were investigated to determine the following key land uses controls:

- **Has the municipality adopted land use zoning controls?**
- **Does the municipality have an airport-specific overlay zone or district?**
- **Does the municipality have a land use map that shows the location of the airport?**
- **Has the municipality adopted some type of height zoning?**

The following table shows municipalities near Eastern Oregon Regional Airport and summarizes the status of land use controls for each. Municipalities and airports throughout Oregon should work together to help ensure airports are protected from incompatible land uses and from the encroachment of obstacles that pose a height hazard to safe airport operations.

LAND USE CONTROL SUMMARY FOR EASTERN OREGON REGIONAL AIRPORT

Type of Control	Jurisdictions Impacting Airport	
	City of Pendleton	Umatilla County
Airport Zone	Yes	Yes
Adopted Height Zoning Restrictions	Yes	Yes
RPZ Protection	No	No
Airport Safety Overlay Zone	Yes	Yes

Source: Angelo Planning Group, Jviation

AIRPORT REPORT CARD AND RECOMMENDATIONS

This section provides information on ODA facility/service objectives associated with a Category I airport in the OAP. The report card below shows Eastern Oregon Regional Airport's ability to meet its objectives. If the Airport does not meet an objective, an estimated cost to enable the Airport to meet the objective was developed.

A number of deficiencies are identified as necessary for improving the Airport to meet all the facility objectives. Total costs to address OAP deficiencies are estimated at $17.7 million.

EASTERN OREGON REGIONAL AIRPORT REPORT CARD

Category I Performance Criteria		PDT	Eastern Oregon Regional Airport at Pendleton	Pendleton
Facilities	**Basic Criteria**	**Actual**	**Action Needed to Meet Criteria**	**Estimated Cost**
Airside Facilities				
FAA – ARC	C-II	C-III		
NPIAS	Yes	Yes		
Based Aircraft	Not an Objective	62		
Runway Orientation	95% wind coverage (combined primary/secondary rwy)	Yes		
Runway Length	6,000 feet	6,301		$ -
Runway Width	100 feet	150		$ -
Runway Pavement Type	Bituminous, Concrete	Bituminous		
Runway Pavement	Varies by Airport*/Design Aircraft	115,000		$ -
Runway Pavement PCI	65	54	Reconstruction or overlay	$ 9,500,000
Taxiways	Full Parallel	Partial Parallel*		$ -
Approach Type	Precision	Precision		$ -
Visual Approach Aids	Both Runway Ends	PAPI, VASI, REIL		
Instrument Approach	One Runway End	MALSR, ODALS		
Runway Lighting	MIRL/HIRL/ALS	HIRL		
Taxiway Lighting	MITL/HITL	MITL		$ -
General Facilities				
Rotating Beacon	Yes	Yes		$ -
Lighted Wind Indicator	Yes	Wind Cone, Lighted Wind		$ -
Weather Reporting	AWOS/ASOS	ASOS		$ -
Hangared Aircraft	75% of Based Aircraft	50%	Provide additional hangar	$ 1,743,750
Apron Parking/Storage	75% of Daily Transient	100%		$ -
Terminal Building	Yes	Yes		$ -
Auto Parking Spaces	Moderate	15		$ -
Fencing	Perimeter; controlled access	Partial fencing only near terminal area	Provide full perimeter fencing and controlled access	$ 998,000
Cargo	Small Handling Facility w/ Apron	Any available space on apron	Provide small handling facility	$ 1,500,000
Deicing Facility	Yes	None	Provide deicing facility	$ 3,750,000
Services				
Fuel	100 LL & Jet A (24-hour self-service)	Yes		$ 200,000
FBO	Full Service (normal business hours)	Yes		
Ground Transportation	Rental Car, Taxi, or Other	Onsite rental car, courtesy car		
Food Service	Coffee Shop/Deli & Cold Foods	Yes		
Restrooms	Yes	Yes		
Pilot Lounge	Yes w/ Weather Reporting Station	Yes		
Snow Removal	Yes	Yes		$ -
Telephone	Yes	Yes		
Total				**$ 17,691,750**

Source: Jviation, Century West, Marr Arnold Planning

OTHER IDENTIFIED FACILITY IMPROVEMENT COSTS

Projects identified in the deficiencies analysis from the OAP represent a portion of the total development and maintenance costs that Oregon airports could require in the near term. In order to have a better picture of total investment needs for Oregon's airport system, it is important to also consider projects identified in each airport's current Statewide Capital Improvement Program (SCIP) and in Oregon's most recent Statewide Pavement Maintenance Program (PMP).

SCIP: Current SCIPs were reviewed to provide ODA with a general understanding of what projects are already being considered on the local level that would address deficiencies noted in the OAP. A review was performed to ensure project costs were not duplicated between the OAP and current SCIP projects for each airport. Analysis of 2018 SCIP data indicates that over $12.3 million in improvements for Eastern Oregon Regional Airport are identified in the SCIP over the next five to ten years. This estimate does not include transfers or PMP funds.

ODA SCIP Improvements (PDT)	Costs
RW 7-25 Rehab - Pre-Design (Environ Cat Ex)	$199,771
RW 7-25 Rehab - Design	$433,333
RW 29 Hot Spot Mitigation-Enviro & Design	$333,333
RW 29 Hot Spot Mitigation - Construction	$3,865,872
TW G Rehabilitation - Design & Construction	$4,641,966
Acquire SRE Building and Construct SRE Building	$2,863,072
Total:	**$12,337,347**

Source: ODA SCIP 2018, Jviation analysis

PMP: ODA's Pavement Maintenance Program (PMP) identifies maintenance, repair, and rehabilitation projects needed to sustain functional pavements at Oregon airports. The PMP program provides some level of pavement maintenance for all paved airports across the state. For NPIAS airports receiving federal monies, this work assists the airports in meeting their grant assurances. Projects in the pavement management plan for Eastern Oregon Regional Airport are estimated at nearly $9.8 million between 2018 and 2023. Projects range from slurry and overcoats to complete pavement rehabilitation. These projects were identified independently of the SCIP as part of Oregon's PMP.

Cost Summary: The OAP v6.0 summarized the Airport's development needs over the next five to ten years. Costs to improve and maintain the Airport over that time frame consider not only projects identified by the OAP, but also projects from ODA's Pavement Maintenance Program and the Airport's own locally generated capital improvement plan reported to ODA (SCIP). These three sources indicate an estimated $39.8 million will be needed to maintain and improve the Airport over the next ten years.

As ODA's Statewide Economic Impact Study has shown, on an annual basis Eastern Oregon Regional Airport supports an estimated $4.0 million in economic benefit. The Airport's annual economic impact helps to offset the Airport's need for average annual investment identified in the state system plan to maintain and improve the Airport.

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