

# **Washington Aviation System Plan (WASP) Update**

Washington State Transportation Commission

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- Aviation System Planning
- WASP vs LATS
- Changes affecting Aviation
- Aviation System Goals
- Airport classifications
- Airport metrics
- Next Steps



# Why update the state's Aviation System Plan?



- RCW 47.68 authorizes WSDOT Aviation to develop the statewide system of airports in cooperation with municipalities, federal authorities and others engaged in aeronautics and civil aviation.
- Federal Aviation Administration encourages states to update aviation system plans every five to seven years.
- Washington's first Aviation System Plan was adopted in 1973, and updated in 1993, 1998, 2001 and 2009.
- The study will improve the system by understanding the needs of the users and will recommend policies to support the future system.

# Study Purpose



- The primary purpose of aviation system planning is to study the performance and interaction of an entire aviation system to understand the contributions of individual airports to the system as a whole.
- The study involves examining:
  - ▶ Emerging issues affecting aviation in Washington state
  - ▶ Aviation user requirements
  - ▶ Current airport usage levels and based aircraft
  - ▶ Capacity to meet current and future demand

# WASP versus LATS

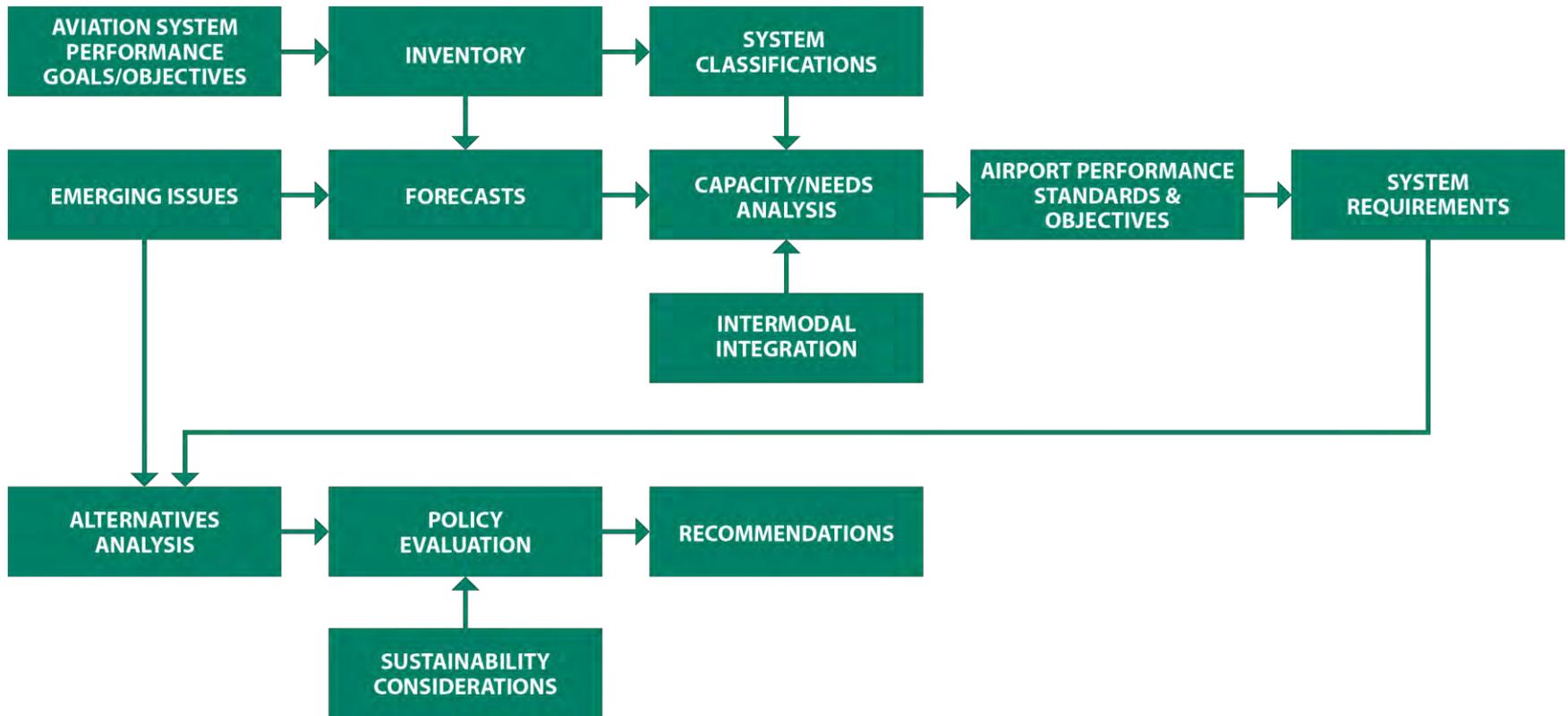
# Long-Term Air Transportation Study (LATS)



- LATS started in 2005 – Engrossed Substitute Senate Bill 5121 required study
- Purpose to examine existing and future capacity
- LATS had “special emphasis regions” elements
- Washington Aviation Planning Council appointed during LATS to develop recommendations; Council submitted final recommendations in July 2009

- Build upon previous efforts & recommendations
  - ▶ 2009 LATS
  - ▶ 2012 Economic Impact Study
  - ▶ 2014 Airport Investment Study
  - ▶ 2015 Airport Investment Solutions Study
- Identify issues and evaluate impacts to determine needed aeronautical program, airport and system improvements
- Engage with the community and seek input
- Prioritize development and make recommendations

# WASP Study Elements



# Changes Affecting Aviation

# What is affecting the system today?

- Emerging Aviation Issues
- Washington State Airport Changes
- National Changes



- ▶ Unmanned Aircraft Systems (UAS)
- ▶ Aircraft Innovation
- ▶ Preparing for NextGen Implementation
- ▶ Decline in General Aviation Activity
- ▶ Contract Tower Alternatives
- ▶ Aerospace Manufacturing
- ▶ Aviation Fuels
- ▶ Airport Infrastructure Funding Challenges

- **General Aviation Airports**

- ▶ Number of public use airports in the system
  - 141 airports at the beginning of LATS
  - 136 airports currently in the system



- **Commercial Passenger Airports**

- ▶ Loss of service at Grant County International and Port Angeles
- ▶ Approval for commercial service at Paine Field
- ▶ SeaTac/Bellingham significant increases in passengers

- **Air Cargo**

- ▶ During the economic downturn in 2008-09 world air cargo dropped 13%

- **Economy**

- ▶ When LATS was published, economy was in recession
- ▶ Economy has strengthened in regions across the state

- **NextGen**

- ▶ 2005 to 2009 – WAAS procedures were being implemented
- ▶ 2015 – ADS-B working, RNP procedures at a number of airports

- **General Aviation**

- ▶ Decline in operations and aircraft during the recession
- ▶ FAA forecasting slight growth in number of aircraft and operations

# Aviation System

## Goals, Objectives, Performance Measures

# System Goals/Objectives/System Performance Measurements



## Aviation System Goals:

- ▶ Aeronautical and Airport Safety
- ▶ Economic Development and Vitality
- ▶ Education, Outreach, and Community Engagement
- ▶ Infrastructure Improvement, Preservation and Capacity
- ▶ Aviation Innovation
- ▶ Modal Mobility, Capacity and Accessibility
- ▶ Stewardship
- ▶ Sustainability

# Airport Classifications

# Why Do We Have Classifications?



## Understand how airports contribute to community and state:

- ▶ Functions and activities at airports
- ▶ Coordinated planning of facilities
- ▶ Measuring system's performance by understanding how each airport contributes to State system
  - ▶ Airport metrics are the measurement of system goals/objectives



# Aviation Related Activities



Skydiving



Emergency Preparedness and Disaster Response



Air Cargo



Aerial Sightseeing



National Security



Pilot Training



Agriculture



Firefighting



General Aviation—  
Personal Transportation



Aircraft Manufacturing



Search and Rescue



Commercial Service



Aerial Photography



Medical Air Transport



General Aviation—  
Business and Corporate Travel



Scientific Research



Blood Tissue and  
Organ Transportation

# Need for New WA Classification System



- FAA systems don't account for non-NPIAS airports and driven by national needs, not WA
- Prior WA classifications determined primarily by drive time analysis and factors were not clearly defined
- Prior WA process did not provide for changes in classifications
- No system measurement

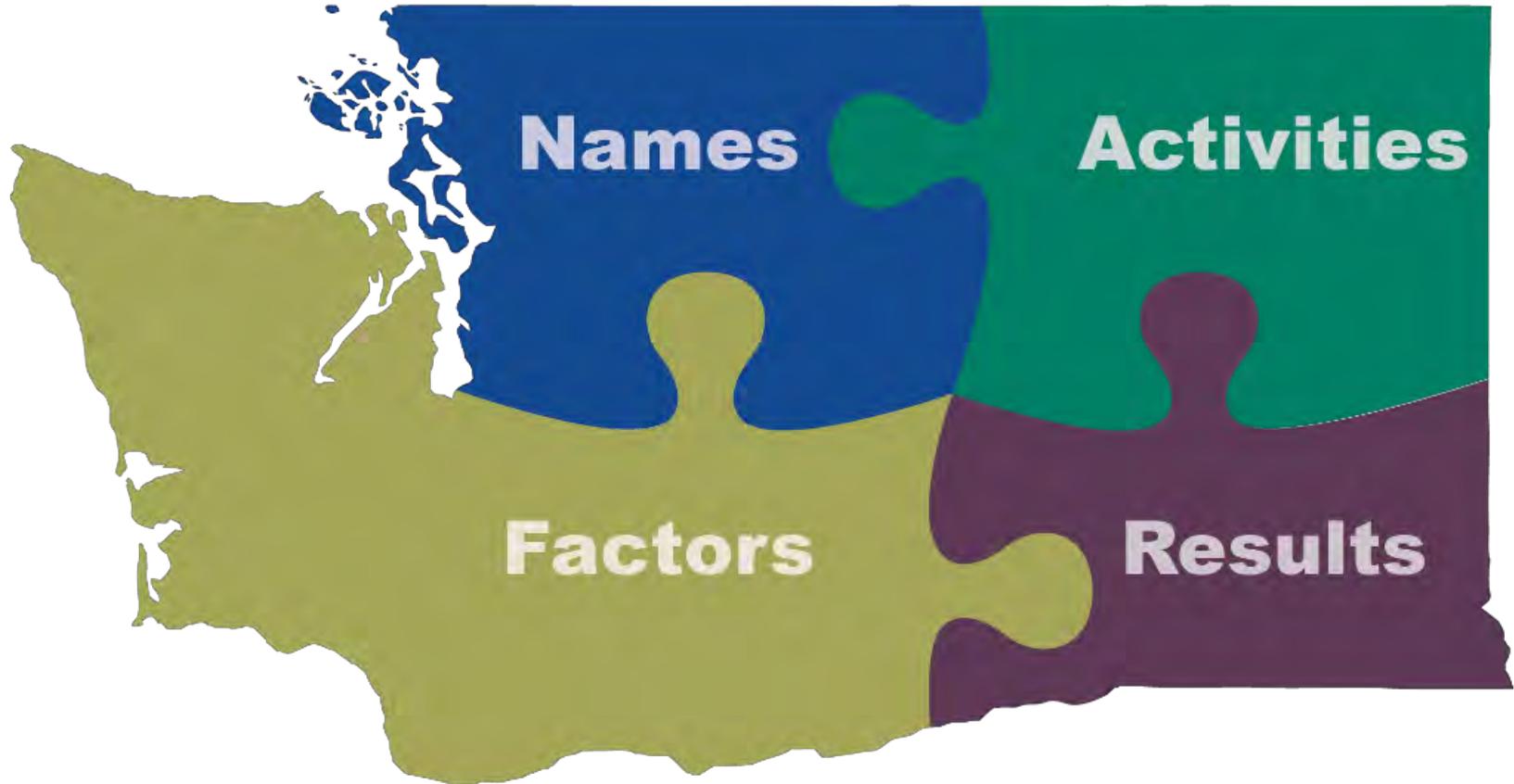


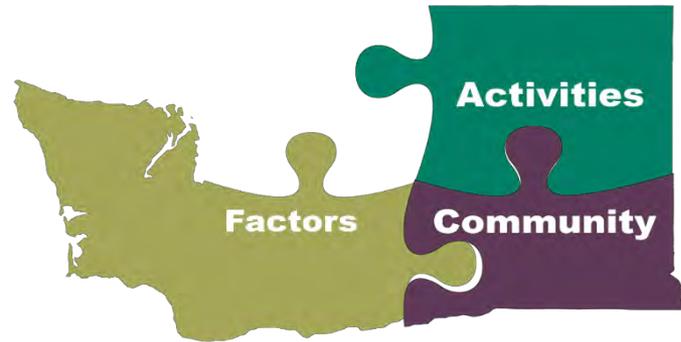
# How are classifications used?



- **Provide parameters to understand how airports are supporting system goals and aviation activities**
- **Airport performance determined by metrics developed for each classification**
- **Individual airport metrics compiled to determine system's performance**

# New WA Airport Classifications





## Critical Aircraft

- Airport capability
- Size of aircraft



## Primary Aviation Activities



## Community Demand

- Population
- Based aircraft
- Unpaved runway surface

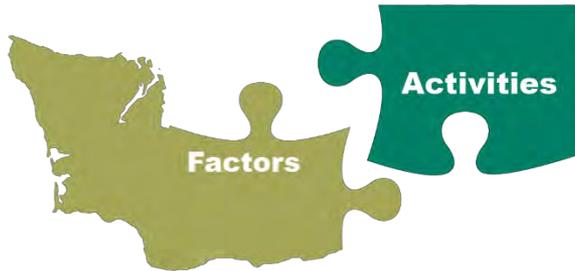


## Activities influence aircraft size and airport characteristics



		Description	Aircraft Types	Critical Aircraft	Primary Activities
Classification	I	Major		ARC C-III or Greater	<ul style="list-style-type: none"> <li>Commercial Service</li> <li>Aircraft or Aerospace Manufacturing</li> </ul>
	II	Regional		ARC B-II or Greater	<ul style="list-style-type: none"> <li>Corporate GA and Business Travel</li> <li>Commuter Passenger Airline Service</li> </ul>
	III	Community		ARC A-I (small) to B-II	<ul style="list-style-type: none"> <li>GA-Personal Transportation/ Business and Recreational</li> <li>Pilot Training</li> </ul>
	IV	Local		ARC A-I (small) to B-II	<ul style="list-style-type: none"> <li>GA-Personal Transportation/ Recreational</li> <li>Pilot Training</li> <li>Agriculture</li> </ul>
	V	General Use		ARC A-I (small) to B-II	<ul style="list-style-type: none"> <li>GA-Personal Transportation/ Recreational including backcountry</li> </ul>

# Primary Activities



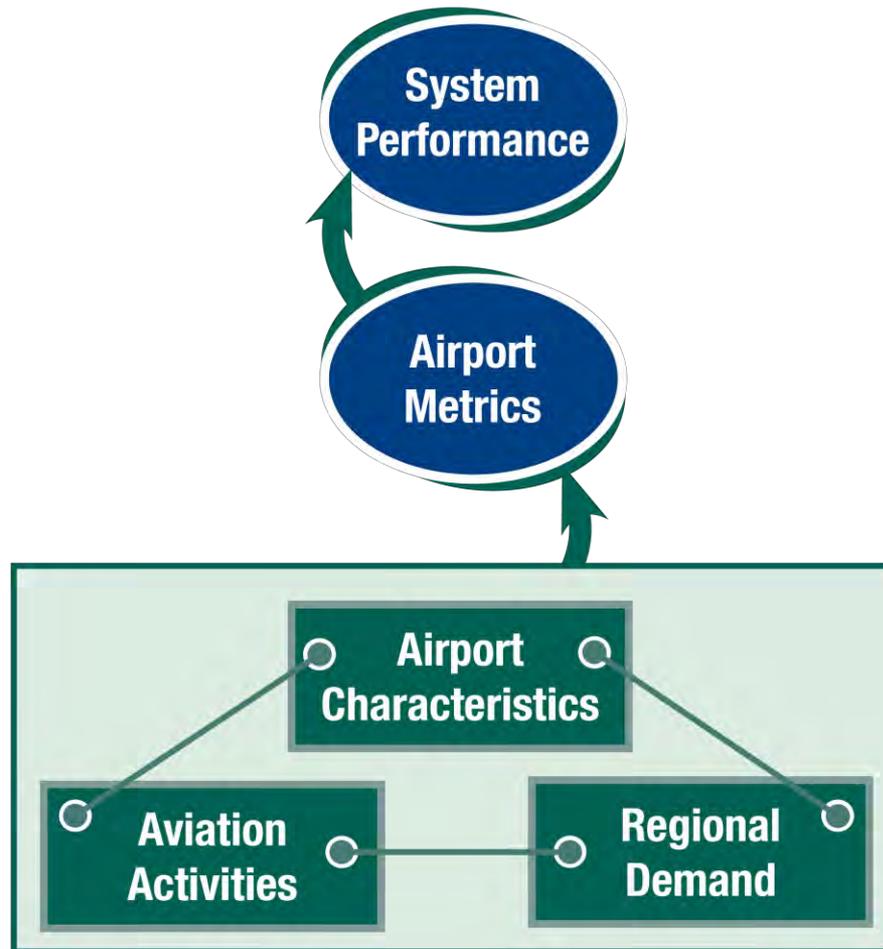
Type of activities relates to type/size of aircraft that need to be accommodated

Significant Impact	Lesser Impact	Undetermined Impact
<b>Air Cargo</b>	Skydiving	Emergency Preparedness and Disaster Response
<b>Pilot Training</b>	Aerial Sightseeing	Firefighting (important if base)
<b>Aircraft Manufacturing</b>	National Security	<b>General Aviation— Personal Transportation</b>
<b>Commercial Service</b>	Agriculture	Search and Rescue
<b>Corporate GA and Business Travel</b>	Aerial Photography	Medical Air Transport
	Scientific Research	Blood Tissue and Organ Transportation



- **Community is an important aspect of the classification**
  - ▶ Community defined in terms of geography and/or population size
    - Geographic community size influences demand for aviation activities
  - ▶ Community is also the aviation community served by airport

# Classifications, Airport Metrics, & System Performance



# Airport Metrics to Achieve System Goals



## System Goals

**Aeronautical and Airport Safety**



**Economic Development and Vitality**



**Education, Outreach and Community Engagement**



**Infrastructure Improvement, Preservation and Capacity**



**Aviation Innovation**



**Modal Mobility, Capacity, and Accessibility**



**Stewardship**



**Sustainability**



## Airport Metrics

- Airport Design Standards
- Obstructions
- Weather Services

- Collaboration with Government Agencies on Economic Opportunities
- Partner with Industry to Support Activities

- Aviation Outreach and Engagement

- Physical Condition of Infrastructure
- Airport Capacity

- Integration of Aviation Innovation

- Ground Access
- Emergency Response

- Land Use Stewardship
- Airport Maintenance
- Planning

- Financial Sustainability
- Environmental Sustainability
- Land Use Controls

**Target: Optimal level expected for ideal functionality**



**Minimum**

## **Standard:**

- Minimum threshold expected for airport classification
- Would be eligible for WSDOT funding

**OR**

## **Recommended:**

- Minimum level encouraged for basic functionality
- May or may not be eligible for WSDOT funding



## Stewardship Planning

CLASSIFICATION	DESCRIPTION	MINIMUM STANDARD	TARGET
I	Major	Master Plan (last 10 years)	Review Master Plan (5 years), AGIS Survey/Evaluation (5 years), eALP and Update Plans as Needed
II	Regional	Master Plan (last 10 years)	Review Master Plan (7 years), AGIS Survey/Evaluation (7 years), eALP and Update Plans as Needed
III	Community	Master Plan and ALP	Review Master Plan (10 years), AGIS Survey/Evaluation (10 years), and Update Plans as Needed
IV	Local	Master Plan and ALP	Review Master Plan (10 years), AGIS Survey/Evaluation (10 years), and Update Plans as Needed
V	General Use	ALP	Review Master Plan (10 years) and Obstructions, and Update Plans as Needed

- Upcoming WSDOT/Consultant Team Activities
  - ▶ Complete Forecasting
  - ▶ Complete Capacity Analysis
  - ▶ Complete the Multimodal Inventory
  - ▶ Develop System Alternative strategies
  - ▶ Develop Preliminary Policy Recommendations

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