

WSDOT Aviation Division: Washington Aviation System Plan (WASP)



Roger Millar
Secretary of Transportation

Tristan Atkins
Director of Aviation

Rob Hodgman
Senior Aviation Planner

*Washington Public Ports Association
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Agenda

- ▶ Study Background, Context and Framework
- ▶ Study Elements
- ▶ Aviation System Goals and Objectives
- ▶ New Airport Classifications
- ▶ Airport Metrics and the Tie to Classifications
- ▶ Emerging Issues
- ▶ Alternative Strategies
- ▶ Modal Connections
- ▶ Policy Recommendations

Background

FAA Advisory Circular 150/5070-7 Airport System Master Plans

The primary purpose of airport system planning is to study the performance and interaction of an entire aviation system to understand the interrelationship of the member airports. The effort involves examining the interaction of the airports with the aviation user requirements, economy, population, and surface transportation of a specific geographic area. The process also results in the establishment of perspectives on aviation priorities, such as airport roles, funding, policy strategies, and system trends in activity level. The process ensures that aviation plans remain responsive to the overall air transportation needs of the state, while identifying the roles and characteristics of existing and recommended new airports, and describing the overall development required at each.

FAA Advisory Circular 150/5070-6B Airport Master Plans

An airport master plan is a comprehensive study of the airport and typically describes short-, medium-, and long-term plans for airport development. Airport master plans are prepared to support the modernization or expansion of existing airports or the creation of a new airport. The master plan is the sponsor's strategy for the development of the airport.

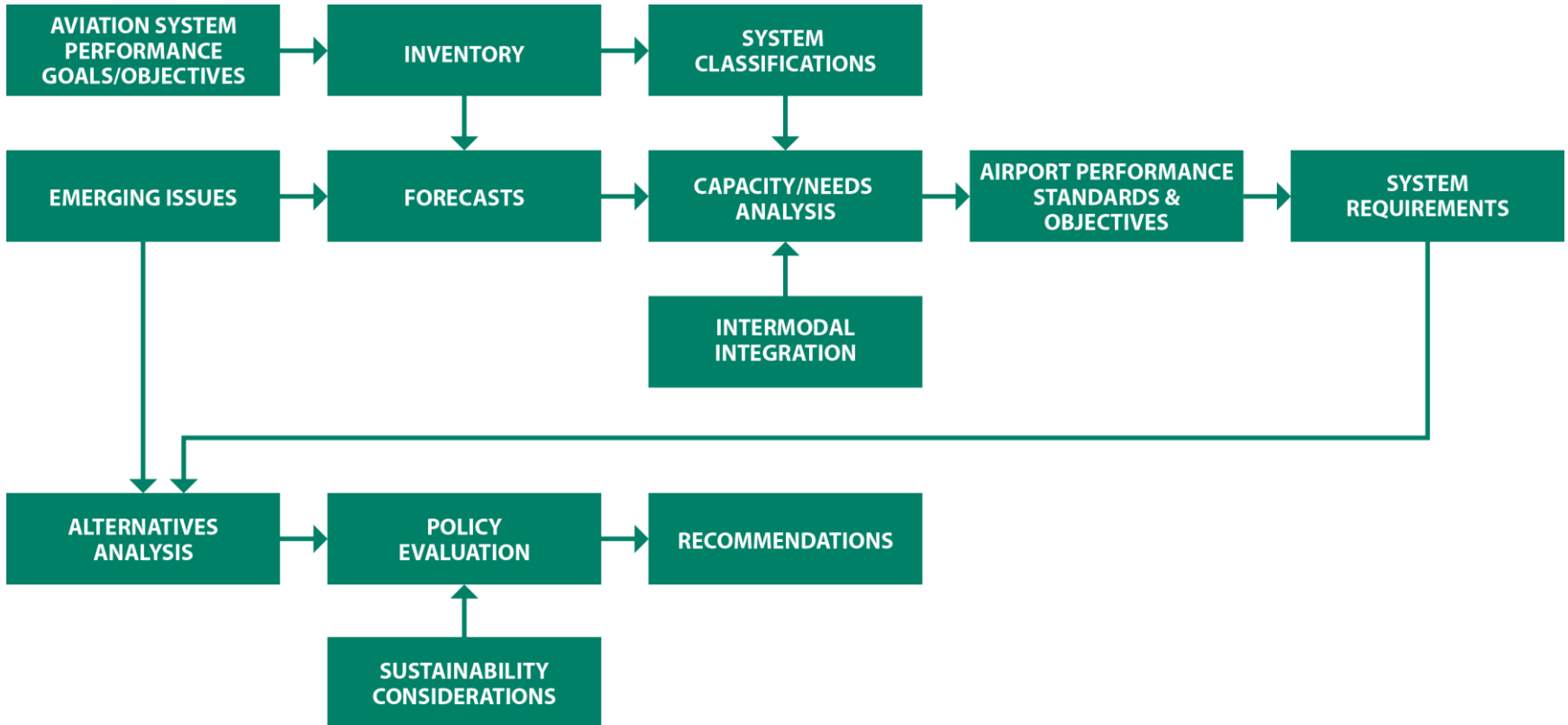
Background

- The FAA encourages states to undertake statewide system planning generally every five years.
- WSDOT's previous aviation system plan, the Long Term Air Transportation Study (LATS) was released in 2009.
- LATS was directed by the legislature and stipulated special focus on four geographic regions in the state and emphasis on commercial passenger service. The WASP did not have these requirements.
- Instead, the WASP integrated the 17 aviation activities identified in the 2012 Aviation Economic Impact Study, which include commercial passenger service, air cargo, business aviation and several other activities.

Aviation System Plan Context

- The purpose of the WSDOT statewide aviation system plan is to study the performance and interaction of the entire aviation system to provide a better understanding of the contributions of individual airports to the overall system.
- The plan is intended to help decision-makers with the information they need to best use limited resources to keep the system viable.
- The WASP was not designed to determine the long-term capacity needs for individual airports.
- Issues related to the long-term capacity of Sea-Tac and the Puget Sound region are addressed by Puget Sound Regional Council through the Regional Airport System Plan.
- The study elements were applied to address two basic elements of the state's airports framework:
 - The complete Aviation System which includes 137 public use airports
 - Seventeen Aviation Activities

WASP Study Elements



Aviation 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

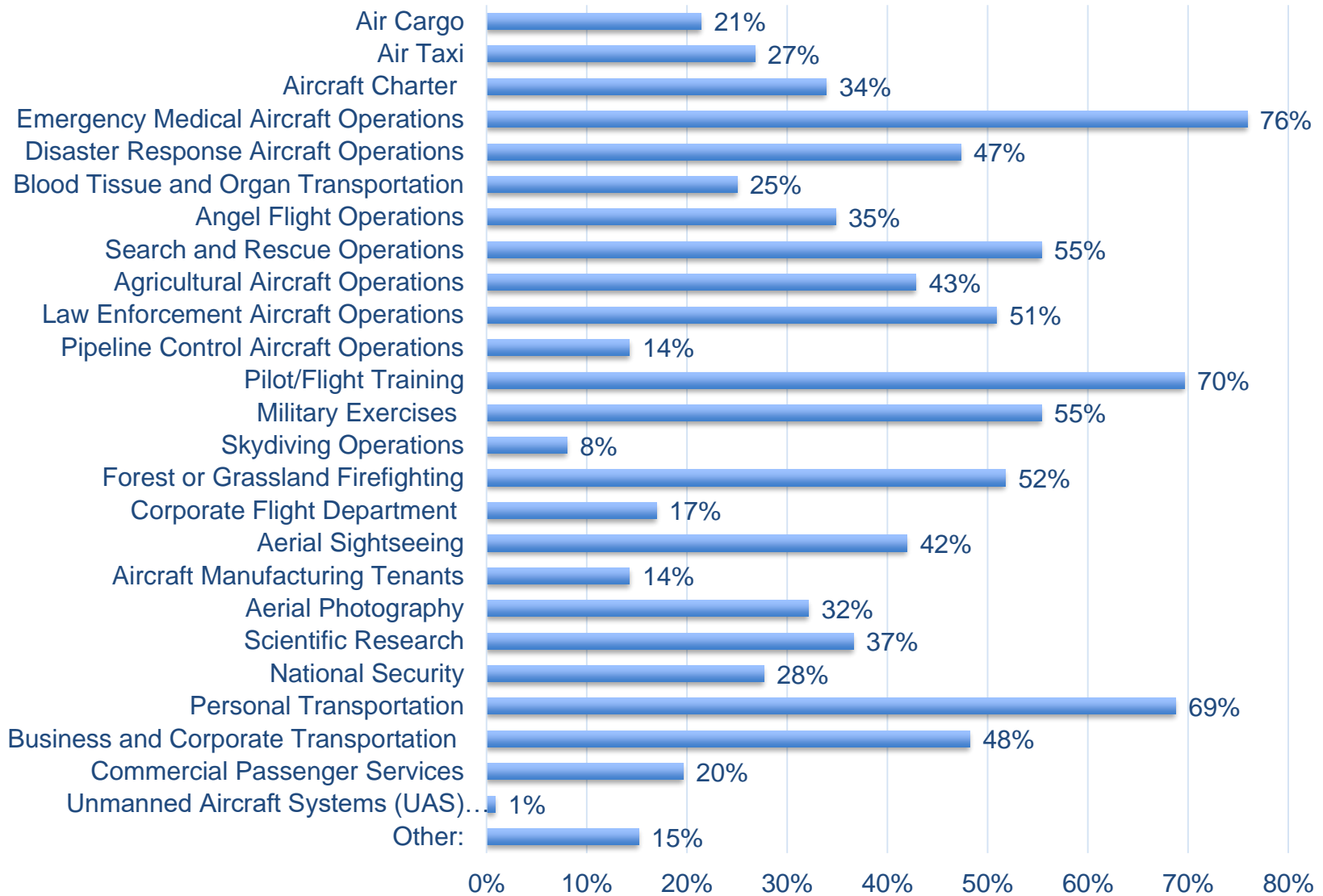


Scientific Research



Blood Tissue and
Organ Transportation

Surveyed Airport Activity



Aviation System Goals, Objectives, and System Performance Measures



Aeronautical and Airport Safety



Aviation Innovation



Economic Development and Vitality



Modal Mobility, Capacity, and Accessibility



Education, Outreach, and Community Engagement



Stewardship



Infrastructure Improvement, Preservation, and Capacity



Sustainability

Aviation System Goals

- ▶ **Aeronautical and Airport Safety:** ensure airports are operating safely and efficiently
- ▶ **Economic Development and Vitality:** support airports abilities to advance business opportunities to create prosperity for airport environment and communities
- ▶ **Education, Outreach, and Community Engagement:** promote aviation and its importance, impact, and activities extending beyond airports
- ▶ **Infrastructure Improvement, Preservation, and Capacity:** ensure system is maintained and improved to handle current and future capacity

Aviation System Goals (cont.)

- ▶ **Aviation Innovation:** support new, emerging, and innovative technologies and processes
- ▶ **Modal Mobility, Capacity, and Accessibility:** ensure airports are easily accessible
- ▶ **Stewardship:** ensure airports strengthen long-term welfare through prudent planning and management of resources
- ▶ **Sustainability:** promote economic vitality, operational efficiency, natural resources, and social responsibility of airports and system

Summary of Classification System

		Description	Primary Activities	Factors to Classify Airports
Classification	I	Major	<ul style="list-style-type: none"> Commercial Service Aircraft or Aerospace Manufacturing 	<ul style="list-style-type: none"> ARC C-III or Greater Primary Activity: Commercial Service and/or Aerospace Manufacturing/ MRO Population over 40,000
	II	Regional	<ul style="list-style-type: none"> Corporate GA and Business Travel Commuter Passenger Airline Service 	<ul style="list-style-type: none"> ARC B-II or Greater Primary Activity: Corporate GA and Business Travel Population over 30,000
	III	Community	<ul style="list-style-type: none"> GA-Personal Transportation/ Business and Recreational Pilot Training 	<ul style="list-style-type: none"> Not Metro or Regional Paved Primary Runway Surface 15 or more Based Aircraft
	IV	Local	<ul style="list-style-type: none"> GA-Personal Transportation/ Recreational Pilot Training Agriculture 	<ul style="list-style-type: none"> Not Metro or Regional Paved Primary Runway Surface Less than 15 Based Aircraft
	V	General Use	<ul style="list-style-type: none"> GA-Personal Transportation/ Recreational including backcountry 	<ul style="list-style-type: none"> Unpaved Primary Runway Surface (including all seaplane bases)

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

Airport Metrics

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

Airport Metric

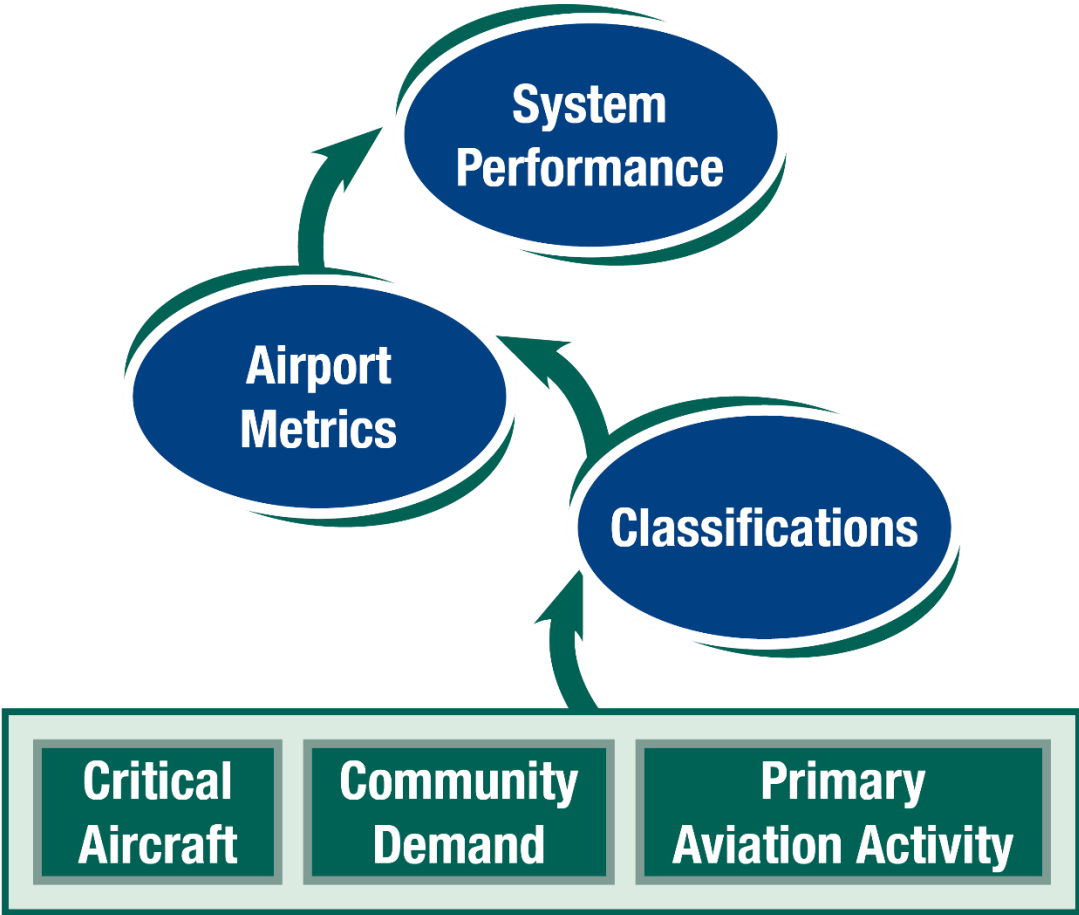


Aeronautical and Airport Safety

Obstructions

CLASSIFICATION	DESCRIPTION	MINIMUM STANDARD	TARGET
I	Major	Clear Runway Safety Area and Threshold Siting Surface for All Runway Ends	Clear Runway Safety Area and Threshold Siting Surface for All Runway Ends, and Clear Obstructions to Achieve Airport's Identified Ultimate Approach Capability
II	Regional	Clear Runway Safety Area and Threshold Siting Surface for Primary Runway Ends	Clear Runway Safety Area and Threshold Siting Surface for All Runway Ends, and Clear Obstructions to Achieve Airport's Identified Ultimate Approach Capability
III	Community	Clear Runway Safety Area and Threshold Siting Surface for Primary Runway Ends	Clear Runway Safety Area and Threshold Siting Surface for All Runway Ends, and Clear Obstructions to Achieve Airport's Identified Ultimate Approach Capability
IV	Local	Clear Runway Safety Area and Threshold Siting Surface for Primary Runway Ends	Clear Runway Safety Area and Threshold Siting Surface for All Runway Ends, and Clear Obstructions to Achieve Airport's Identified Ultimate Approach Capability
V	General Use	Clear Runway Safety Area and Threshold Siting Surface for Primary Runway Ends	Clear Runway Safety Area and Threshold Siting Surface for All Runway Ends, and Clear Obstructions to Achieve Airport's Identified Ultimate Approach Capability

Classifications Relate to Airport Metrics



Emerging Issues

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

Alternative Strategies

- ▶ Qualitative examination – alternative strategies for consideration
 - ▶ Statewide Support for Emerging Issues
 - ▶ Regional Perspective on Airport Needs
 - ▶ Airport Alternative Strategies



Options available to meet
Washington's aviation needs

Airport Alternative Strategy Considerations

Focus Areas



Strategy Categories



Objectives/Outcomes



Multimodal Strategies

Multimodal Planning:

- ▶ Plan for all modes,
- ▶ Invite partners to participate in planning process,
- ▶ Adopt goals, select performance measures, and identify strategies



Relationship of Goals to Other Elements



WASP Policy Recommendations

<p>GOAL</p> <p>Aeronautical and Airport Safety</p> 	<p>POLICY RECOMMENDATIONS</p> <ul style="list-style-type: none"> Develop facility objectives and best practices for state infrastructure standards for non-NPIAS and uninhabited airports. Continue to prioritize state and federal resource allocation for projects that address federal and state standards, including maintaining safe and clear approaches to airports. Continue to reduce airspace impacts due to wildlife and man-made structural obstructions to critical airspace near airports. Reconsider the aviation system definition and expand it to include heliports and future 'droneports'.
<p>GOAL</p> <p>Economic Development and Vitality</p> 	<p>POLICY RECOMMENDATIONS</p> <ul style="list-style-type: none"> Partner with government agencies (state, regional, airports) and industry freight representatives regarding air cargo data and needs to better understand demands, issues, and opportunities related to ground transportation, economic development, and financial investment. Collaborate with airports, the Department of Commerce, the Washington Tourism Alliance, and others to promote maintenance and explore the strategies for meeting growing demand for passenger and cargo commercial service activities throughout the State. Support implementation of strategic aviation system investments that leverage the value of the aerospace industry and commercial economic development growth at airports.
<p>GOAL</p> <p>Education, Outreach, Community Engagement and Stewardship</p> 	<p>POLICY RECOMMENDATIONS</p> <ul style="list-style-type: none"> Update the State's aviation economic impact study and support economic development growth at airports. Demonstrate the benefits and contributions of the aviation system to local, regional, and statewide economies through educational and stakeholder activities. Identify collaborative, systematic approaches to enhance airport participation in local, regional and statewide transportation planning activities to recognize multimodal opportunities and needs that support airport activities. Continue educational outreach programs that facilitate information sharing across the state with pilots, airports, agencies, and organizations regarding aviation subjects ranging from airspace to land use, unmanned aircraft systems/drones, and future topics arising from emerging issues.
<p>GOAL</p> <p>Aviation Innovation</p> 	<p>POLICY RECOMMENDATIONS</p> <ul style="list-style-type: none"> Legislatively direct aviation taxes and fees to fund investments in airport infrastructure. Support aviation capacity as a resource from the Legislature and WSDOT by preserving, protecting and enhancing capacity through strategies focusing on airport operations, technology, safety, and land use. Emphasize as a priority and continue partnering with others to develop viable solutions to providing adequate future capacity in the Puget Sound region to accommodate documented growth in commercial service demand. Continue to provide funding support for pavement, including preservation and maintenance, to continue stewardship of the most critical infrastructure element of the airport system. Partner and collaborate with airports and regions identified as having aircraft storage capacity constraints to determine feasible mechanisms, such as a revolving loan fund, that can be used to accommodate facility requirements. Continue to seek to implement funding and non-funding airport infrastructure solutions.
<p>GOAL</p> <p>Aviation Innovation, Multimodal Mobility, Capacity, and Accessibility</p> 	<p>POLICY RECOMMENDATIONS</p> <ul style="list-style-type: none"> Seek opportunities to develop and continue partnerships to sustain and grow Washington's prominence in leading aviation innovation, fostering strategies that support education, training, maintenance, and development of innovative technologies in all areas including aerospace manufacturing. Continue engaging at the national level on unmanned aircraft systems (UAS)/drones policy and regulation to understand the best possible integration for Washington citizens, airports, and the overall aviation system. Work with partners and stakeholders to determine whether government should establish policy for zones where UAS activity should be prohibited or regulated. Host working groups to explore possible future infrastructure needs associated with aircraft innovation. Increase multimodal coordination, communication, and partnerships between airports and other modal representatives (state, regional, local transportation planning entities) that strengthens connectivity between modal planning and results in identification of policies that support multimodal needs. Identify signage, access roads, and ground transportation options that can be improved to support airport accessibility. Pursue a statewide NextGen study that will address challenging airspace issues.
<p>GOAL</p> <p>Infrastructure Improvement, Preservation, and Capacity</p> 	<p>POLICY RECOMMENDATIONS</p> <ul style="list-style-type: none"> Legislatively direct aviation taxes and fees to fund investments in airport infrastructure. Support aviation capacity as a resource from the Legislature and WSDOT by preserving, protecting and enhancing capacity through strategies focusing on airport operations, technology, safety, and land use. Emphasize as a priority and continue partnering with others to develop viable solutions to providing adequate future capacity in the Puget Sound region to accommodate documented growth in commercial service demand. Continue to provide funding support for pavement, including preservation and maintenance, to continue stewardship of the most critical infrastructure element of the airport system. Partner and collaborate with airports and regions identified as having aircraft storage capacity constraints to determine feasible mechanisms, such as a revolving loan fund, that can be used to accommodate facility requirements. Continue to seek to implement funding and non-funding airport infrastructure solutions.
<p>GOAL</p> <p>Aviation Innovation, Multimodal Mobility, Capacity, and Accessibility</p> 	<p>POLICY RECOMMENDATIONS</p> <ul style="list-style-type: none"> Develop plans that promote stewardship of the existing investment in airport facilities that include participation by local, regional, and State government, business, and industry organizations. Support development of airport plans and municipal codes that reflect airport needs, implement land use controls for protection from encroachment, and include business planning and evaluation of revenue opportunities to promote land use compatibility and financial diversification. Partner with government, communities, academia, and industry to develop aerospace/aviation awareness, networking, and mentoring opportunities. Continue to grow partnerships and programs to promote general aviation growth. Promote sustainable best practices identified on the state and national level that lead to financially and environmentally sustainable development. Support investment in aviation technologies, including NextGen and biofuels development, to meet future aviation needs and reduce greenhouse gas emissions.
<p>GOAL</p> <p>Aviation Innovation, Multimodal Mobility, Capacity, and Accessibility</p> 	<p>POLICY RECOMMENDATIONS</p> <ul style="list-style-type: none"> Develop plans that promote stewardship of the existing investment in airport facilities that include participation by local, regional, and State government, business, and industry organizations. Support development of airport plans and municipal codes that reflect airport needs, implement land use controls for protection from encroachment, and include business planning and evaluation of revenue opportunities to promote land use compatibility and financial diversification. Partner with government, communities, academia, and industry to develop aerospace/aviation awareness, networking, and mentoring opportunities. Continue to grow partnerships and programs to promote general aviation growth. Promote sustainable best practices identified on the state and national level that lead to financially and environmentally sustainable development. Support investment in aviation technologies, including NextGen and biofuels development, to meet future aviation needs and reduce greenhouse gas emissions.

Rob Hodgman

Senior Aviation Planner
Aviation System Plan Project Manager

Office: 360-596-8910

Mobile: 306-529-6551

HodgmaR@wsdot.wa.gov