WSDOT Aviation Division: Aviation System Plan Update

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WSDOT Aviation Division Statewide Workshops
Background

- 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.

Purpose

• The primary purpose of airport 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:
  – Aviation user requirements
  – Current airport usage levels and based aircraft
  – Capacity to meet current and future demand
Work Elements

• The planning process includes:
  – Establishing goals and objectives of the system
  – Exploration of **issues that impact aviation** in the study area
  – Evaluation of Airport Classification System and **Performance Objectives**
  – **Inventory** of the current system
  – Forecast of system **demand**
  – Identification of air transportation system size (**capacity**)
  – Development of facility or **system requirements**
  – Consideration of **alternative** airport systems
Work Elements (cont)

• The planning process includes:
  – Understanding of **intermodal integration** and connections to the system
  – Evaluation of **sustainability considerations** and goals
  – Definition of **airport roles** and **policy strategies**
  – **Community engagement** and stakeholder outreach
  – **Recommendation** of system changes, funding strategies, and airport development
  – Preparation of an **implementation plan**
Additional Work Elements

The study will also examine emerging issues or technologies such as:

• Integrating the FAA’s NextGen and Airports Geographic Information System (AGIS) programs
• Unmanned Aircraft Systems (UAS) at airports
• Aviation fuels (No-Lead AVGAS/MOGAS)
• Aerospace Manufacturing
• Contracted towers funding challenges.
Advisory Committee

WSDOT assembled a comprehensive and diverse advisory committee to include representatives from:

- Commercial Airport
- Regional Airport
- GA Airport
- State Airport Association
- Federal Aviation Administration
- Economic Development
- Association of Washington Cities
- Association of Washington Counties
- Tribal Representative
- Airline Industry Representative
- Aerospace Futures Alliance
- Aviation Academic Institution
- MPO/RTPO Aviation Planner
- Aviation Technical Services Firm
- Business Aviation (NBAA)
- Pilots (AOPA)
- Air Cargo
- Tourism Industry
System Plan – Phase II

• AGIS / NextGen Project:
  – Collect AGIS data to support future IFR procedure development
  – Identify and classify objects penetrating Part 77 approach surface
  – Imagery collection in fall of 2015
What is NextGen?

NextGen represents an evolution from a ground-based system of air traffic control to a satellite-based system of air traffic management.
RNP started in Juneau, Alaska, as a way of opening up a “terrain-challenged airport to reliable all weather operations.”
Sea-Tac RNP Flight Path

Reduce track mileage to minimum

Optimized Descent Profile

Traditional Step-down Approach

Optimized Profile Descent

Airport

engines idled
Why NextGen Matters

NextGen will:

• Improve approaches & low-visibility operations
• Safely allow less separation between aircraft
• Enable more arrivals and departures
• Reducing delays
• Allow more direct routes
  ▪ Reduce fuel consumption
  ▪ Reduce carbon emissions
• Reduce noise
How Does WSDOT Support NextGen

• Puget Sound Regional Council (PSRC) Study
• WSDOT anticipates a NextGen pilot project September 2015
• Collect accurate airport spatial data critical to NextGen
• Template for statewide NextGen project
Accurate Airport Spatial Data

- Survey of Flight Critical Data “Boots on the Ground”
- Imagery Acquisition (leaf on)
- Remote Sensing of Non-Flight Critical Data
- Obstruction Identification
- Validation and Upload to FAA AGIS
What are the benefits for Airports?

- Airport Sponsors will be set up on the AGIS System
- Obstruction Survey
- FAR Part 77 Obstruction Survey
- New Airport Imagery
- Full data set in ArcGIS / CAD
Schedule

- WASP Phase I Kick-off: Apr 2015
- WASP Phase II Kick-off: Sep 2015
- Inventory: Sep-Nov 2015
- Imagery Acquisition: Spring 2016
- Project Completion: Dec 2016
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