

**PORT OF SEATTLE**  
**MEMORANDUM**

**COMMISSION AGENDA –STAFF BRIEFING**

**Item No.** 7c  
**Date of Meeting** February 28, 2012

**DATE:** February 21, 2012

**TO:** Tay Yoshitani, Chief Executive Officer

**FROM:** Stan Shepherd, Manager Airport Noise Programs  
Tom Hooper, Aviation Planner

**SUBJECT:** Ground Run-up Enclosure Siting Study

**SYNOPSIS:**

Today’s Commission update is about work in progress to analyze options for siting a Ground Run-up Enclosure (GRE), for potential construction on the airfield. No decisions have been made regarding the need or the siting of a GRE, as further evaluation and Commission approval is required. No Commission action is being requested at this time. Once further evaluation is complete, staff will return to the Commission for a follow-up briefing and ask the Commission to provide direction on GRE construction.

The GRE is one element of the ongoing Part 150 Noise and Land Use Compatibility Study. If approved by the Federal Aviation Administration (FAA) through the Part 150 Study and authorized by the Commission, the GRE would become eligible for partial funding via grant funds through the Airport Improvement Program (AIP).

**BACKGROUND:**

A GRE is a large three-sided facility used by air carriers for aircraft engine testing, following maintenance. GREs can contribute to noise reduction in surrounding communities of up to 15 to 20 decibels (dB). Currently, there are approximately two run-ups per day. Run-ups can generate a significant amount of noise within the community, often triggering noise complaints.

In March 1990, the Noise Mediation Committee concluded its negotiations on noise mitigation for Seattle-Tacoma International Airport (Airport). In regard to ground noise, the agreement stated, “If any additional maintenance base is developed at the airport, it will require the provision of an engine ‘hushing’ facility (or GRE). The GRE Siting and Feasibility Study would provide the capacity to abate the noise of the engine maintenance run-ups.” Since then, no additional maintenance bases have been developed at Sea-Tac. On December 12, 2000, the Commission adopted Resolution No. 3443 (Part 150 Study) that directed staff to complete a Siting and Feasibility Study for a GRE at the Airport.

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The purpose of the study was to determine whether a GRE would significantly reduce noise impacts from aircraft engine maintenance run-ups in the surrounding communities.

On September 30, 2001, a GRE Siting and Feasibility Study was completed. It found that a GRE could provide significant noise reduction and included possible locations, orientation of the facility, and percentage of anticipated use by aircraft type. The study concluded that the best location for a GRE would be in the future proposed South Aviation Support Area (SASA). SASA was a proposed development area at the far south end of the airfield, determined through the master planning effort for the Airport's 1997 Master Plan to be the preferred location for relocation and expansion of cargo and aircraft maintenance facilities. Shortly after the completion of the GRE Siting Study, further planning analysis concluded that SASA would not be built and an alternative planned location for the GRE would need to be identified.

### **Current Part 150 GRE Feasibility Study**

The Part 150 consulting team and Port of Seattle staff have evaluated potential locations for a GRE on the airfield. The GRE evaluation began with six general locations on the airfield based on available land, future development, and proximity to existing aircraft maintenance facilities. Due to physical constraints, each location presents difficult tradeoffs. Each location was evaluated, using the following criteria: potential noise impacts to existing facilities; compatibility with future planned facilities; operational impacts to aircraft performing run-ups and other aircraft; height restrictions; Air Traffic Control (ATC) line of sight constraints; community noise benefits/impacts; environmental concerns; and construction cost.

Considering the current and anticipated future fleet mix, 96 percent of all aircraft operating at the Airport would be able to use a GRE designed to accommodate the Boeing 737-900 aircraft. In any location on the airfield, the GRE would be available a high percentage of the time based on historic wind conditions and orientation of the facility.

The Feasibility Study work is preliminary and on-going.

### **Airline Concerns**

Port staff and the consulting team provided a high level briefing to the Airlines Airport Affairs Committee (AAAC) on June 27, 2011, on the preliminary findings of the study. At that meeting the airlines expressed concerns regarding the operational feasibility and funding of a GRE. A letter was submitted for the record to the Port Commission at the June 28, 2011, Commission meeting questioning the justification of, need for, and cost of the facility.

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### **Cost Estimate**

The cost for a GRE structure is estimated to be approximately \$3 to \$6 million. Additional costs for site preparation and infrastructure are significantly different for each possible site.

### **Source of Funds**

This project is FAA AIP Grant eligible at approximately 80 percent, if approved through the Part 150 Study; however, the availability of federal funding at this time is unknown. The remaining portion would be funded through Airport revenues.

### **NEXT STEPS:**

- Include the GRE as one element to the Part 150 anticipated to be submitted to the FAA in 2012
- Public hearing and comment period for all elements of the Part 150
- Complete Environmental Review under State Environmental Policy Act (SEPA) and National Environmental Policy Act
- Airline Approval
- Commission Approval
- Submit to FAA for final review
- FAA Approval
- Commission Update
- Apply for FAA AIP grant funding
- If FAA grant secured, begin Capital Improvement Program process of design and construction

### **OTHER DOCUMENTS ASSOCIATED WITH THIS BRIEFING:**

PowerPoint Presentation

Letter dated June 27, 2011, from the Airlines Airport Affairs Committee to the Port Commission

### **PREVIOUS COMMISSION ACTIONS OR BRIEFINGS:**

**December 12, 2000** - Commission adopted Resolution No. 3443 (Part 150 Study) directing staff to complete a Siting and Feasibility Study for a GRE at the Airport

**December 19, 2001**- Staff briefed the Commission on the GRE Siting and Feasibility Study and the preferred outcomes

**October 16, 2007** – Comprehensive Development Plan GRE Staff Briefing to Commission

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**June 22, 2010** – Part 150 Noise and Land Use Compatibility Update Briefing, including GRE information

**October 26, 2010** - Part 150 Noise and Land Use Compatibility Update Briefing, including GRE information

**June 28, 2011** - Part 150 Noise and Land Use Compatibility Update Briefing, including GRE information

**August 23, 2011** - Part 150 Noise and Land Use Compatibility Update Briefing, including GRE information

**June 28, 2011** – Part 150 Noise and Land Use Compatibility Update Briefing, including GRE update, held in Federal Way