



**COMMISSION  
AGENDA MEMORANDUM**

**Item No.** 3c

**BRIEFING ITEM**

**Date of Meeting** April 25, 2017

**DATE:** March 7, 2017 (Memo revised April 19, 2017)  
**TO:** Dave Soike, Interim Chief Executive Officer  
**FROM:** Elizabeth Leavitt, Senior Director, Environment and Sustainability  
Arlyn Purcell, Director Aviation Environmental Services  
Stan Shepherd, Manager Airport Noise Programs  
**SUBJECT:** Seattle-Tacoma International Airport Flight Track and NextGen Briefing

**EXECUTIVE SUMMARY**

Today's briefing will consist of an overview of NextGen presented by David Suomi, the Deputy Regional Administrator of the FAA's Northwest Mountain Region. Mr. Suomi will speak on the implementation of NextGen both throughout the National Airspace System (NAS) and specifically the status at Sea-Tac. Stan Shepherd, Manager, Airport Noise Programs, will give an overview of Sea-Tac's local flight procedures and noise programs.

The Port continues to receive questions from the public regarding the benefits and impacts of NextGen flight procedures on the local communities. This briefing is intended to help provide a better understanding of increased air traffic at Sea-Tac Airport and the limited use of NextGen flight procedures within our local airspace.

**BACKGROUND**

Flight track and noise abatement procedures have been in place at Sea-Tac Airport since 1990 when the Federal Aviation Administration (FAA) implemented the 4 post plan to safely and efficiently funnel aircraft into and out of Sea-Tac Airport through 4 different quadrants of the airspace. Sea-Tac's jet aircraft noise abatement procedures mimic most of the 4 post plan procedures with a goal of keeping aircraft over water and industrial areas whenever feasible. Where there is no water or industrial options, corridors keep jet aircraft on a narrow path until reaching defined distances and altitudes before turning. Due to their relatively lower speed, propeller aircraft do not follow noise abatement procedures and are turned after takeoff to ensure safe separation from jets.

Noise abatement procedures in place at Sea-Tac are designed to minimize the impact of aircraft noise on the airport's surrounding communities. Other noise-related programs the Port has implemented include sound insulation of single-family homes and condominiums, as well as acquisition of residential property impacted by aircraft noise. These programs must be approved by the FAA through their Part 150 regulation process that outlines steps airports must

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take to gain federal funding eligibility. Sea-Tac completed its last noise study in 2014 and is in the implementation phase of the mitigation programs starting with the completion of the earlier single-family residential sound insulation. The Port also will continue its commitments to the Highline School District to provide funding for sound mitigation to schools outlined in a 2002 Memorandum of Agreement between the School District, the FAA and the Port. Each school sound insulation project will be submitted for funding approval from the FAA.

In 2008, Sea-Tac teamed up with Alaska Airlines and The Boeing Company to discuss ways of reducing noise and emissions within the Puget Sound Region. As a result of those discussions and preliminary work, the FAA developed the Greener Skies program, which consists of GPS flight procedures known as Required Navigation Performance (RNP). RNP relies upon GPS satellite technology, rather than ground-based radar, to guide aircraft in a more precise flight path, and it is one element of the FAA's comprehensive NextGen program. The goal of the Greener Skies program is to increase the efficiency of flight tracks by bringing aircraft in from west side approaches, over water as much as possible, using Optimized Profile Descent (OPD). A quieter, more fuel efficient approach, OPD allows the aircraft to utilize an idle engine setting from high altitudes all the way to the runway. The RNP tracks were developed to shorten track miles and minimize community overflights where possible. Although the FAA began using the Greener Skies RNP in 2014, it has yet to be fully implemented due to flight procedure conflicts with aircraft that use the legacy Instrument Landing System (ILS). Out of approximately 500 total arriving flights per day at Sea-Tac, roughly 200 flights use the RNP procedures to some degree. On final approach, all aircraft, including those using RNP, ILS and Visual approaches use approximately a 3 degree descent, which is standard at U.S. airports.

**ATTACHMENTS TO THIS BRIEFING**

- (1) [Port of Seattle presentation slides](#)
- (2) [FAA presentation slides](#)

**PREVIOUS COMMISSION ACTIONS OR BRIEFINGS**

February 21, 2012 – Commission Briefing on Greener Skies Over Seattle