



SMART SHEET

Seattle-Tacoma International Airport

Air quality in and around Seattle is an ongoing concern for residents in the region. Although the air is improving, there's more work to be done.

NextGen procedures are helping address air quality from an aviation perspective through the Greener Skies Over Seattle initiative. The project is a collaboration between the FAA, air carriers, the Port of Seattle and Boeing. Through a series of precision approaches to the runway, aircraft burn less fuel, create fewer emissions and generate less noise — making Seattle's skies quieter and greener.

Among the more efficient approaches used at Seattle is Optimized Profile Descent (OPD), a Performance Based Navigation procedure. OPDs enable aircraft to take a more-direct approach to airports prior to landing. They are designed to reduce level offs during descent, which saves fuel and reduces noise.

By using a combination of Area Navigation (RNAV) and Required Navigation Performance (RNP) procedures, many flights into Sea-Tac use OPDs for a smoother and more efficient approach to the runway.

At the 11 airports where the FAA has implemented OPDs, the new procedures saved \$4 million in fuel for aircraft operators between 2013 and 2014.



Greener Skies is expected to cut fuel consumption for airlines serving Seattle by 2.1 million gallons a year and reduce carbon emissions by 22,000 metric tons — the equivalent of taking 4,100 cars off the road every year.

ECONOMIC IMPACT OF SEA-TAC VISITORS

171,796
jobs, including 109,924 direct jobs

\$6.1
billion in personal income

\$16.3
billion in business revenue

\$565
million in state and local tax revenue



Source: The Economic Impact of Seattle-Tacoma International Airport. Port of Seattle, 2013

AIRPORT FACTS AND FIGURES

- Washington state's busiest airport
- An estimated 42.3 million passengers served in 2015
- Nearly a 13 percent increase from 2014
- Main hub for Alaska Airlines and its regional subsidiary Horizon Air
- An international gateway to Asia and Europe for Delta Air Lines



Sources: ACI North America & Delta Air Lines

Additional NextGen Capabilities at Sea-Tac

- **Time Based Flow Management** helps air traffic controllers predict aircraft arrival times at various points during a flight. This enables controllers to better direct the flow of air traffic to and from airports, and enables pilots to take advantage of more efficient approaches such as OPDs.
- **Automatic Dependent Surveillance–Broadcast** helps air traffic controllers better locate and track an aircraft’s position.
- **Airport Surface Detection System–Model X** enables controllers to monitor airport vehicles on the ground to prevent collisions.
- **RNAV and RNP** arrival and departure procedures let aircraft take more direct routes to and from the airport, saving time and fuel, and reducing carbon emissions.
- **Improved Approaches and Low-Visibility Operations** enable aircraft to safely land during periods of low visibility, which helps keep the airport functioning during bad weather.
- **Improved Multiple Runway Operations** enable more aircraft to take off and land closer together, which enables more air traffic in and out of the airport.



An Alaska Airlines plane takes off from Seattle-Tacoma International Airport. Source: www.cbp.gov