

Establishing True Demand for New Routes

Alaska Airlines needed deeper knowledge of passenger end-to-end travel. StreetLight's customized Origin-Destination (O-D) Metric provided comprehensive insights to better identify travel demand across the country.

EXECUTIVE SUMMARY

- Alaska Airlines needed location data pinpointing passengers' ultimate trip origins and destinations.
- StreetLight provided detailed custom O-D Metrics and analysis, informing a new custom travel demand model for planners.
- Cross-referencing data with the airline's ticket system validated the results.

Mission: Identify Air Travelers' Ultimate O-D

Alaska Airlines' network planning team wanted a deeper understanding of demand for prospective new routes, as well as the optimal frequency of flights to those new destinations.

They sought to understand where travelers' full journeys began and ended, beyond the airport system.

For example, a device based in Seattle may appear in Boston for three days, then New York for an hour and Miami for five days. Existing industry data sources would capture that travel as SEA-BOS, BOS-NY, and NYC-MIA, when the true O-D pairs are SEA-BOS and SEA-MIA.

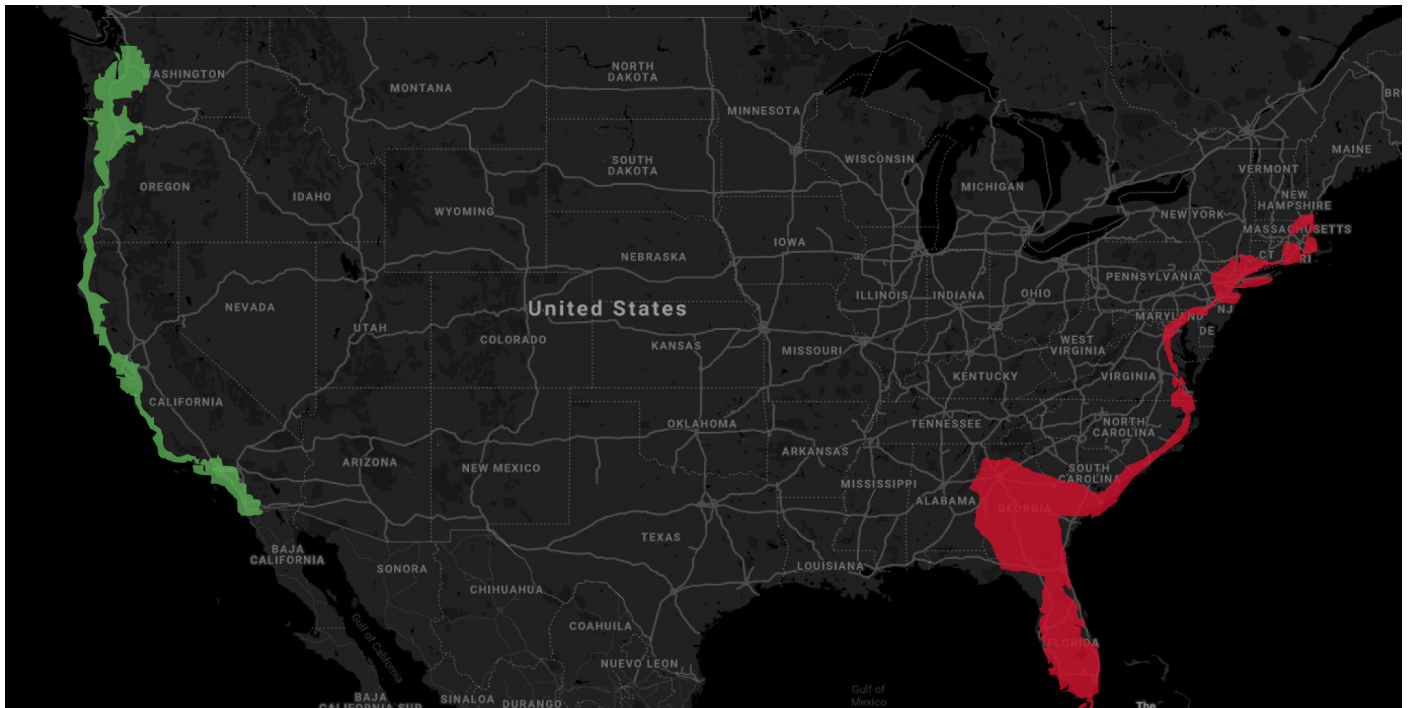
Alaska Airlines' analysts determined that location-based services (LBS) data could serve as a reliable tool to capture the end points of their passengers' journeys. They turned to StreetLight to model a new paradigm of travel demand.

"What sealed the deal was StreetLight's willingness to explain the technical nuances and to work within our budget."

KEVIN LEMME

Alaska
AIRLINES





StreetLight analyzed five origins (in green) and 15 destinations (in red) across the country, creating shape files based on zip code information provided by Alaska Airlines.

Analysis: Collaborative Custom Project

StreetLight worked hand-in-hand with Alaska Airlines’ network planning team on the custom project. After a series of discovery meetings with key stakeholders, StreetLight developed a tailored process to meet Alaska Airlines’ data requirements, system specifications, and budget parameters.

StreetLight’s data science experts captured the volume of mobile devices geolocated in catchment areas surrounding the five designated airports of origin, and then the correlating catchment areas surrounding the 15 destination airports. Every “home” zip code associated with each nearby airport was analyzed in correlation with the new arrival location of those mobile devices. If they were detected for more than 12 hours, the passenger’s final destination could be confirmed.

StreetLight and Alaska Airlines collaboratively launched a Phase 1 sample test over three months. They analyzed the end-to-end journey of passengers on flights departing from five of their network’s major airport hubs, and landing at 15 designated airports.

Results: Validated Insights

StreetLight provided Alaska Airlines’ data scientists with meticulous detail on the technical intricacies of the custom project, including information on how the data was collected and triangulated for this brand-new use case.

The methodology and resulting data set from the Phase 1 test was validated through the cross reference to industry data, providing proof of concept.

The new O-D advanced analytics also provided the logic to extract actionable insights the network planning team sought, which is key to accurately modeling true demand for prospective new routes.

Phase 2 of the project will expand to include 15 airports of origin and 2,000 destinations. Larger data sets and deeper insights will provide a real competitive advantage, with potential for a wide array of innovative use cases in the near future.