

Airline Route Optimizer Report

Auto-generated using scripts/report.py.

Airlines showcased: Delta Air Lines, American Airlines

Network Snapshots

Delta Air Lines

- Routes analyzed: 1146
- Airports served: 230
- Total routes: 1146
- Top hubs: [('ATL', 337), ('JFK', 153), ('DTW', 153), ('MSP', 120), ('SLC', 86)]

American Airlines

- Routes analyzed: 1265
- Airports served: 259
- Total routes: 1265
- Top hubs: [('DFW', 224), ('CLT', 219), ('MIA', 190), ('PHL', 185), ('PHX', 112)]

ASM Accuracy Snapshot

Delta Air Lines

Seat Source	Routes	Valid ASM Routes	Total Seats	Total ASM	ASM Share
airline_config	732	120663	226436066	81.6%	
equipment_estimate	307	41472	51095635	18.4%	
unknown	107	0	0	0	0.0%

ASM data quality looks healthy.

American Airlines

Seat Source	Routes	Valid ASM Routes	Total Seats	Total ASM	ASM Share
airline_config1180	1180	198094	394852642	91.1%	
equipment_estimate	65	9900	38787007	8.9%	
unknown	20	0	0	0	0.0%

ASM data quality looks healthy.

Competing Route Overlap

Source	Dest
ATL	DFW
ATL	MIA
AUS	JFK
BCN	JFK
BDA	JFK
BKK	NRT
BNA	LAX
BOS	CUN
BOS	JFK
BOS	LAX

CBSA Opportunity Highlights

Delta Air Lines

- Top corridor **HNL-ATL** links — (ASM 1.27M, score 0.71).
- 5 total CBSA corridors met the performance filter.
- No CBSA-similar opportunities surfaced.

Top CBSA corridors	Rank	Route	CBSA Pair	ASM	Total Seats	Performance Score
	1	HNL-ATL		1.27M		
281	0.71	ATL-HNL		1.27M	281	0.71
226	0.39	SLC-HNL		677K	226	0.39
234	0.37		SEA-HNL	626K	5	

Suggested CBSA opportunities *No CBSA-similar opportunities surfaced.*

American Airlines

- Top corridor **DFW-HNL** links — (ASM 904K, score 0.71).
- 5 total CBSA corridors met the performance filter.
- Best opportunity **FLL-LAX** mirrors Miami-Fort Lauderdale-West Palm Beach, FL <-> Los Angeles-Long Beach-Anaheim, CA (100% distance match vs MIA-LAX, score 0.62).

Top CBSA corridors	Rank	Route	CBSA Pair	ASM	Total Seats	Performance Score
			DFW-HNL	— 904K		
239 0.71	2	HNL-DFW	— 904K	239 0.71	3 OGG-DFW	—
887K 239 0.70	4	DFW-OGG	— 887K	239 0.70	5 MIA-LAX	—
— 770K 329 0.62						

Suggested CBSA opportunities	Rank	Proposed Route	CBSA Pair	Reference Route	Distance Match	Opportunity Score
— — 1 FLL-LAX		Miami-Fort Lauderdale-West Palm Beach, FL <->				
Los Angeles-Long Beach-Anaheim, CA			MIA-LAX	100%	0.62	2
			FLL-LGB	Miami-Fort Lauderdale-West Palm Beach, FL <->	Los Angeles-Long Beach-Anaheim, CA	
			MIA-LAX	99%	0.62	3
			FLL-SNA	Miami-Fort Lauderdale-West Palm Beach, FL <->	Los Angeles-Long Beach-Anaheim, CA	
			MIA-LAX	99%	0.62	

Next Steps

- Run `python3 main.py --airline AIRLINE1 --airline AIRLINE2` for interactive comparisons.
- Seed CBSA data via `python3 main.py --build-cbsa-cache`.
- Use `scripts/showcase.py` for a quick CLI preview.