APPENDIX C

Operational Data

APPENDIX C.1

Operational Data Summary

APPENDIX C.1 OPERATIONAL DATA SUMMARY

Title 14 Code of Federal Regulations (CFR) Part 150, *Airport Noise Compatibility Planning* (issued January 1985) (14 CFR Part 150), requires that noise exposure maps (NEMs) and supporting documentation be made available to interested parties so that they can submit views, data, and comments regarding the accuracy and adequacy of the draft NEMs and the description of forecast operations. To satisfy these requirements, this appendix provides information on the operational inputs used to generate the 2025 existing conditions and 2030 future conditions noise contours presented in the NEMs developed for Boca Raton Airport (BCT or the Airport).

The Federal Aviation Administration (FAA) requires that NEMs prepared under 14 CFR Part 150 use the yearly day-night average sound level metric (DNL) to measure cumulative noise from all aircraft operations over a 24-hour period, averaged across a full calendar year. This is referred to as the annual average day (AAD). Accordingly, the operational data presented in this appendix are expressed in terms of AAD.

C.1 AIRCRAFT OPERATIONS

In accordance with 14 CFR Part 150, NEMs were prepared for two scenarios: existing conditions (2025) and 5-year future conditions (2030). The 2025 Existing Conditions NEM is based on operational data for the full 2024 calendar year, and the 2030 Future Conditions NEM uses the 2030 operations forecast provided in **Appendix B**.

C.1.1 2025 EXISTING CONDITIONS

The 2025 Existing Conditions NEM was developed using operational data from the full year of 2024, when 85,555 itinerant and local[1] aircraft operations were recorded at BCT, equating to 234.4 AAD operations. **Tables C-1**, **C-2**, and **C-3** present the number of AAD arrival, departure, and touch and go operations,[2] respectively, broken down by aircraft type, time of day, and Aircraft Noise and Performance (ANP) data profile with an aircraft type identification code (ANP ID) used in the FAA Aviation Environmental Design Tool (AEDT) Version 3g to model aircraft noise exposure.

[1] Itinerant operations involve aircraft arriving from outside the airport area and departing to locations outside the airport area. Local operations involve aircraft that remain in the local traffic pattern and conduct simulated instrument approaches, touch and go operations, or designated practice, generally within a 20-mile radius of the airport traffic control tower.

[2] Touch and go operations include one landing and one takeoff.

TABLE C-1 (1 OF 2) 2025 EXISTING CONDITIONS ANNUAL AVERAGE DAY AIRCRAFT ARRIVAL OPERATIONS

AIRCRAFT TYPE	ANP ID	DAY	NIGHT	TOTAL
Jet	BD-700-1A10	0.8493	0.0589	0.9081
	BD-700-1A11	0.4213	0.0297	0.4510
	CIT3	0.2648	0.0194	0.2842
	CL600	6.7437	0.4445	7.1883
	CL601	0.5191	0.0390	0.5581
	CNA500	0.0895	0.0068	0.0963
	CNA510	1.0290	0.0736	1.1026
	CNA525C	2.6867	0.1891	2.8757
	CNA55B	4.6015	0.3138	4.9153
	CNA560U	0.6310	0.0431	0.6741
	CNA560XL	3.2495	0.2058	3.4553
	CNA680	3.3299	0.2089	3.5388
	CNA750	3.5374	0.2350	3.7724
	CRJ9-ER	0.7733	0.0452	0.8185
	ECLIPSE500	1.0156	0.0762	1.0917
	EMB145	0.9229	0.0572	0.9801
	FAL900EX	1.3304	0.0992	1.4295
	G650ER	0.2074	0.0144	0.2218
	GIV	2.4440	0.1728	2.6169
	GV	1.4756	0.1104	1.5860
	IA1125	0.5181	0.0388	0.5569
	LEAR35	4.6787	0.3305	5.0091
	MU3001	0.9353	0.0626	0.9979
	T-38A	0.0152	0.0016	0.0169
Piston	BEC58P	2.3745	0.1907	2.5652
	CNA172	11.4735	0.9059	12.3794
	CNA182	0.8605	0.0681	0.9286
	CNA206	0.2356	0.0185	0.2541
	CNA20T	0.1661	0.0130	0.1791
	COMSEP	3.8863	0.3076	4.1938
	GASEPF	5.2868	0.4222	5.7089
	GASEPV	2.9956	0.2372	3.2328
	PA30	0.2501	0.0244	0.2745
	T34	0.0424	0.0033	0.0458
Turboprop	CNA208	1.8686	0.0978	1.9664
	CNA441	0.3707	0.0188	0.3895
	DHC6	2.4357	0.2021	2.6378
	DHC8	0.0065	0.0003	0.0068
	DHC830	0.0027	0.0001	0.0028
	SF340	0.0277	0.0023	0.0299

TABLE C-1 (2 OF 2) 2025 EXISTING CONDITIONS ANNUAL AVERAGE DAY AIRCRAFT ARRIVAL OPERATIONS

AIRCRAFT TYPE	ANP ID	DAY	NIGHT	TOTAL
Helicopter	A109	0.0494	0.0043	0.0537
	B206L	0.0403	0.0035	0.0438
	B407	0.3735	0.0324	0.4059
	B429	0.0677	0.0059	0.0736
	EC130	0.0183	0.0016	0.0199
	H500D	0.0110	0.0010	0.0119
	R22	0.1104	0.0033	0.1138
	R44	0.2325	0.0201	0.2527
	S70	0.0019	0.0007	0.0027
	S76	0.0769	0.0067	0.0836
	SA341G	0.0415	0.0005	0.0420
	SA350D	0.0018	0.0002	0.0020
	SA355F	0.0293	0.0025	0.0318
	SA365N	0.0058	0.0021	0.0080
Total		**75.6129**	**5.4732**	**81.0861**

NOTES:
ANP ID – an Aviation Environmental Design Tool Aircraft Noise and Performance data profile with an aircraft type aircraft noise profile identification code
Day – 7:00 a.m. to 9:59 p.m.
Night – 10:00 p.m. to 6:59 a.m.
Totals may not add due to rounding.
SOURCES: Boca Raton Airport Authority, Aircraft Noise Monitoring System, Aircraft Radar and Flight Header Data for CY2024 (aircraft types); Boca Raton Airport Traffic Control Tower Operations Log; Federal Aviation Administration, Traffic Flow Management System Counts, http://aspm.faa.gov/ (aircraft types; accessed January 14, 2025); Federal Aviation Administration, Aviation Environmental Design Tool (AEDT) Version 3g, August 2024 (ANP ID); Ricondo & Associates, Inc., August 2025 (analysis).

TABLE C-2 (1 OF 2) 2025 EXISTING CONDITIONS ANNUAL AVERAGE DAY AIRCRAFT DEPARTURE OPERATIONS

AIRCRAFT TYPE	ANP ID	DAY	NIGHT	TOTAL
Jet	BD-700-1A10	0.8702	0.0380	0.908
	BD-700-1A11	0.4316	0.0195	0.451
	CIT3	0.2711	0.0131	0.284
	CL600	6.9146	0.2737	7.188
	CL601	0.5313	0.0268	0.558
	CNA500	0.0916	0.0047	0.096
	CNA510	1.0542	0.0484	1.103
	CNA525C	2.7525	0.1233	2.876
	CNA55B	4.7161	0.1992	4.915
	CNA560U	0.6468	0.0273	0.674
	CNA560XL	3.3337	0.1217	3.455
	CNA680	3.4169	0.1219	3.539
	CNA750	3.6270	0.1454	3.772
	CRJ9-ER	0.7942	0.0243	0.818
	ECLIPSE500	1.0393	0.0524	1.092
	EMB145	0.9471	0.0330	0.980
	FAL900EX	1.3616	0.0680	1.430
	G650ER	0.2125	0.0093	0.222
	GIV	2.5041	0.1128	2.617
	GV	1.5101	0.0759	1.586
	IA1125	0.5302	0.0267	0.557
	LEAR35	4.7924	0.2167	5.009
	MU3001	0.9588	0.0391	0.998
	T-38A	0.0156	0.0013	0.017
Piston	BEC58P	2.4102	0.1550	2.565
	CNA172	11.6648	0.7146	12.379
	CNA182	0.8747	0.0539	0.929
	CNA206	0.2396	0.0144	0.254
	CNA20T	0.1690	0.0101	0.179
	COMSEP	3.9502	0.2436	4.194
	GASEPF	5.3702	0.3387	5.709
	GASEPV	3.0447	0.1880	3.233
	PA30	0.2486	0.0259	0.274
	T34	0.0432	0.0026	0.046
Turboprop	CNA208	1.8954	0.0709	1.966
	CNA441	0.3759	0.0135	0.389
	DHC6	2.4693	0.1685	2.638
	DHC8	0.0066	0.0002	0.007
	DHC830	0.0027	0.0001	0.003
	SF340	0.0281	0.0019	0.030

TABLE C-2 (2 OF 2) 2025 EXISTING CONDITIONS ANNUAL AVERAGE DAY AIRCRAFT DEPARTURE OPERATIONS

AIRCRAFT TYPE	ANP ID	DAY	NIGHT	TOTAL
Helicopter	A109	0.0508	0.0029	0.054
	B206L	0.0414	0.0024	0.044
	B407	0.3839	0.0220	0.406
	B429	0.0696	0.0040	0.074
	EC130	0.0188	0.0011	0.020
	H500D	0.0113	0.0006	0.012
	R22	0.1115	0.0023	0.114
	R44	0.2390	0.0137	0.253
	S70	0.0019	0.0007	0.003
	S76	0.0790	0.0045	0.084
	SA341G	0.0416	0.0003	0.042
	SA350D	0.0019	0.0001	0.002
	SA355F	0.0301	0.0017	0.032
	SA365N	0.0057	0.0022	0.008
Total		**77.2030**	**3.8831**	**81.0861**

NOTES:

ANP ID – an Aviation Environmental Design Tool Aircraft Noise and Performance data profile with an aircraft type aircraft noise profile identification code

Day – 7:00 a.m. to 9:59 p.m.

Night – 10:00 p.m. to 6:59 a.m.

Totals may not add due to rounding.

SOURCES: Boca Raton Airport Authority, Aircraft Noise Monitoring System, Aircraft Radar and Flight Header Data for CY2024 (aircraft types); Boca Raton Airport Traffic Control Tower Operations Log; Federal Aviation Administration, Traffic Flow Management System Counts, http://aspm.faa.gov/ (aircraft types; accessed January 14, 2025); Federal Aviation Administration, Aviation Environmental Design Tool (AEDT) Version 3g, August 2024 (ANP ID); Ricondo & Associates, Inc., August 2025 (analysis).

TABLE C-3 2025 EXISTING CONDITIONS ANNUAL AVERAGE DAY AIRCRAFT TOUCH AND GO OPERATIONS

AIRCRAFT TYPE	ANP ID	DAY	NIGHT	TOTAL
Jet	CL600	0.1012	0.0089	0.1100
	CNA500	0.0072	0.0006	0.0079
	CNA510	0.0427	0.0103	0.0530
	CNA525C	0.0860	0.0141	0.1002
	CNA55B	0.0355	0.0097	0.0451
	CNA560U	0.0105	0.0042	0.0147
	CNA560XL	0.0217	0.0019	0.0236
	CNA680	0.0210	0.0084	0.0294
	CNA750	0.0411	0.0085	0.0496
	ECLIPSE500	0.2168	0.0190	0.2358
	GIV	0.0821	0.0170	0.0991
	GV	0.0217	0.0019	0.0236
	LEAR35	0.2546	0.0240	0.2785
Piston	BEC58P	0.4539	0.0198	0.4737
	CNA172	56.8553	2.4783	59.3336
	CNA182	0.4980	0.0217	0.5197
	CNA206	0.0378	0.0016	0.0395
	CNA20T	0.0189	0.0008	0.0197
	COMSEP	1.0591	0.0462	1.1052
	GASEPF	6.8620	0.3025	7.1645
	GASEPV	1.2923	0.0563	1.3486
	PA30	0.2396	0.0104	0.2500
Turboprop	CNA208	0.1413	0.0277	0.1690
	CNA441	0.0535	0.0042	0.0577
	DHC6	0.3085	0.3057	0.6143
	DHC830	0.0357	0.0028	0.0385
	SF340	0.0098	0.0107	0.0205
Total		**68.8077**	**3.4175**	**72.2251**

NOTES:
ANP ID – an Aviation Environmental Design Tool Aircraft Noise and Performance data profile with an aircraft type aircraft noise profile identification code
Touch and go operations include one landing and one takeoff.
Day – 7:00 a.m. to 9:59 p.m.
Night – 10:00 p.m. to 6:59 a.m.
Totals may not add due to rounding.
SOURCES: Boca Raton Airport Authority, Aircraft Noise Monitoring System, Aircraft Radar and Flight Header Data for CY2024 (aircraft types); Boca Raton Airport Traffic Control Tower Operations Log; Federal Aviation Administration, Traffic Flow Management System Counts, http://aspm.faa.gov/ (aircraft types; accessed January 14, 2025); Federal Aviation Administration, Aviation Environmental Design Tool (AEDT) Version 3g, August 2024 (ANP ID); Ricondo & Associates, Inc., August 2025 (analysis).

C.1.2 2030 FUTURE CONDITIONS

The 2030 Future Conditions NEM was developed using the 2030 operations forecast. Total aircraft operations are forecast to increase to 97,274 in 2030, equating to 266.5 AAD operations. More information on the forecast used in the NEM Update for BCT is included in Appendix B. **Tables C-4** through **C-6** present the number of AAD operations by aircraft type, day and night, and ANP ID used to model aircraft noise exposure under the 2030 future conditions. Table C-4 presents arrival operations, Table C-5 presents departure operations, and Table C-6 presents touch and go operations.

TABLE C-4 (1 OF 2) 2030 FUTURE CONDITIONS ANNUAL AVERAGE DAY AIRCRAFT ARRIVAL OPERATIONS

AIRCRAFT TYPE	ANP ID	DAY	NIGHT	TOTAL
Jet	BD-700-1A10	0.9649	0.0666	1.0315
	BD-700-1A11	0.4762	0.0334	0.5097
	CIT3	0.2959	0.0216	0.3175
	CL600	7.7723	0.5096	8.2819
	CL601	0.5755	0.0431	0.6186
	CNA500	0.0991	0.0075	0.1065
	CNA510	1.1667	0.0828	1.2496
	CNA525C	3.0474	0.2132	3.2606
	CNA55B	5.2612	0.3567	5.6179
	CNA560U	0.7241	0.0491	0.7732
	CNA560XL	3.7857	0.2386	4.0243
	CNA680	3.8977	0.2432	4.1409
	CNA750	4.0788	0.2692	4.3480
	CRJ9-ER	0.9194	0.0536	0.9730
	ECLIPSE500	1.1260	0.0844	1.2104
	EMB145	1.0812	0.0668	1.1479
	FAL900EX	1.4779	0.1100	1.5879
	G650ER	0.2355	0.0163	0.2518
	GIV	2.7774	0.1950	2.9724
	GV	1.6371	0.1224	1.7595
	IA1125	0.5746	0.0430	0.6176
	LEAR35	5.2860	0.3718	5.6578
	MU3001	1.0733	0.0715	1.1448
	T-38A	0.0168	0.0017	0.0185
Piston	BEC58P	2.6282	0.2115	2.8396
	CNA172	12.6752	1.0015	13.6768
	CNA182	0.9509	0.0753	1.0262
	CNA206	0.2601	0.0204	0.2805
	CNA20T	0.1833	0.0143	0.1976
	COMSEP	4.2944	0.3402	4.6346
	GASEPF	5.8464	0.4674	6.3138
	GASEPV	3.3104	0.2624	3.5728
	PA30	0.2834	0.0279	0.3113
	T34	0.0468	0.0037	0.0505

TABLE C-4 (2 OF 2) 2030 FUTURE CONDITIONS ANNUAL AVERAGE DAY AIRCRAFT ARRIVAL OPERATIONS

AIRCRAFT TYPE	ANP ID	DAY	NIGHT	TOTAL
Turboprop	CNA208	2.1137	0.1099	2.2236
	CNA441	0.4104	0.0208	0.4312
	DHC6	2.7072	0.2157	2.9229
	DHC8	0.0074	0.0004	0.0077
	DHC830	0.0032	0.0002	0.0033
	SF340	0.0328	0.0025	0.0353
Helicopter	A109	0.0546	0.0047	0.0593
	B206L	0.0445	0.0039	0.0483
	B407	0.4122	0.0357	0.4479
	B429	0.0748	0.0065	0.0812
	EC130	0.0202	0.0018	0.0220
	H500D	0.0121	0.0011	0.0132
	R22	0.1259	0.0037	0.1296
	R44	0.2566	0.0222	0.2788
	S70	0.0019	0.0007	0.0027
	S76	0.0849	0.0074	0.0922
	SA341G	0.0478	0.0005	0.0483
	SA350D	0.0020	0.0002	0.0022
	SA355F	0.0323	0.0028	0.0351
	SA365N	0.0058	0.0021	0.0080
Total		**85.2801**	**6.1383**	**91.4184**

NOTES:
ANP ID – an Aviation Environmental Design Tool Aircraft Noise and Performance data profile with an aircraft type aircraft noise profile identification code
Day – 7:00 a.m. to 9:59 p.m.
Night – 10:00 p.m. to 6:59 a.m.
Totals may not add due to rounding.
SOURCES: Boca Raton Airport Authority, Aircraft Noise Monitoring System, Aircraft Radar and Flight Header Data for CY2024 (aircraft types); Boca Raton Airport Traffic Control Tower Operations Log; Federal Aviation Administration, Traffic Flow Management System Counts, http://aspm.faa.gov/ (aircraft types; accessed January 14, 2025); Federal Aviation Administration, Aviation Environmental Design Tool (AEDT) Version 3g, August 2024 (ANP ID); Ricondo & Associates, Inc., August 2025 (analysis and forecast).

TABLE C-5 (1 OF 2) 2030 FUTURE CONDITIONS ANNUAL AVERAGE DAY AIRCRAFT DEPARTURE OPERATIONS

AIRCRAFT TYPE	ANP ID	DAY	NIGHT	TOTAL
Jet	BD-700-1A10	0.9887	0.0428	1.0315
	BD-700-1A11	0.4879	0.0218	0.5097
	CIT3	0.3029	0.0146	0.3175
	CL600	7.9698	0.3122	8.2819
	CL601	0.5889	0.0297	0.6186
	CNA500	0.1014	0.0052	0.1065
	CNA510	1.1954	0.0542	1.2496
	CNA525C	3.1222	0.1384	3.2606
	CNA55B	5.3926	0.2253	5.6179
	CNA560U	0.7424	0.0309	0.7732
	CNA560XL	3.8839	0.1404	4.0243
	CNA680	3.9998	0.1411	4.1409
	CNA750	4.1825	0.1655	4.3480
	CRJ9-ER	0.9442	0.0288	0.9730
	ECLIPSE500	1.1524	0.0580	1.2104
	EMB145	1.1095	0.0384	1.1479
	FAL900EX	1.5126	0.0753	1.5879
	G650ER	0.2413	0.0105	0.2518
	GIV	2.8459	0.1265	2.9724
	GV	1.6754	0.0841	1.7595
	IA1125	0.5880	0.0296	0.6176
	LEAR35	5.4149	0.2429	5.6578
	MU3001	1.1004	0.0444	1.1448
	T-38A	0.0172	0.0014	0.0185
Piston	BEC58P	2.6671	0.1725	2.8396
	CNA172	12.8857	0.7911	13.6768
	CNA182	0.9665	0.0597	1.0262
	CNA206	0.2646	0.0160	0.2805
	CNA20T	0.1865	0.0111	0.1976
	COMSEP	4.3647	0.2699	4.6346
	GASEPF	5.9378	0.3760	6.3138
	GASEPV	3.3644	0.2084	3.5728
	PA30	0.2814	0.0300	0.3113
	T34	0.0477	0.0028	0.0505
Turboprop	CNA208	2.1441	0.0795	2.2236
	CNA441	0.4162	0.0150	0.4312
	DHC6	2.7447	0.1783	2.9229
	DHC8	0.0075	0.0003	0.0077
	DHC830	0.0032	0.0001	0.0033
	SF340	0.0333	0.0020	0.0353

TABLE C-5 (2 OF 2) 2030 FUTURE CONDITIONS ANNUAL AVERAGE DAY AIRCRAFT DEPARTURE OPERATIONS

AIRCRAFT TYPE	ANP ID	DAY	NIGHT	TOTAL
Helicopter	A109	0.0561	0.0032	0.0593
	B206L	0.0457	0.0026	0.0483
	B407	0.4236	0.0243	0.4479
	B429	0.0768	0.0044	0.0812
	EC130	0.0208	0.0012	0.0220
	H500D	0.0125	0.0007	0.0132
	R22	0.1271	0.0025	0.1296
	R44	0.2637	0.0151	0.2788
	S70	0.0019	0.0007	0.0027
	S76	0.0872	0.0050	0.0922
	SA341G	0.0480	0.0004	0.0483
	SA350D	0.0021	0.0001	0.0022
	SA355F	0.0332	0.0019	0.0351
	SA365N	0.0057	0.0022	0.0080
Total		**87.0797**	**4.3387**	**91.4184**

NOTES:
ANP ID – an Aviation Environmental Design Tool Aircraft Noise and Performance data profile with an aircraft type aircraft noise profile identification code
Day – 7:00 a.m. to 9:59 p.m.
Night – 10:00 p.m. to 6:59 a.m.
Totals may not add due to rounding.
SOURCES: Boca Raton Airport Authority, Aircraft Noise Monitoring System, Aircraft Radar and Flight Header Data for CY2024 (aircraft types); Boca Raton Airport Traffic Control Tower Operations Log; Federal Aviation Administration, Traffic Flow Management System Counts, http://aspm.faa.gov/ (aircraft types; accessed January 14, 2025); Federal Aviation Administration, Aviation Environmental Design Tool (AEDT) Version 3g, August 2024 (ANP ID); Ricondo & Associates, Inc., August 2025 (analysis and forecast).

TABLE C-6 2030 FUTURE CONDITIONS ANNUAL AVERAGE DAY AIRCRAFT TOUCH AND GO OPERATIONS

AIRCRAFT TYPE	ANP ID	DAY	NIGHT	TOTAL
Jet	CL600	0.1174	0.0103	0.1277
	CNA500	0.0084	0.0007	0.0091
	CNA510	0.0485	0.0108	0.0593
	CNA525C	0.0988	0.0152	0.1140
	CNA55B	0.0401	0.0101	0.0502
	CNA560U	0.0117	0.0043	0.0160
	CNA560XL	0.0251	0.0022	0.0274
	CNA680	0.0233	0.0086	0.0319
	CNA750	0.0468	0.0090	0.0559
	ECLIPSE500	0.2515	0.0221	0.2735
	GIV	0.0937	0.0181	0.1117
	GV	0.0251	0.0022	0.0274
	LEAR35	0.2950	0.0275	0.3226
Piston	BEC58P	0.5265	0.0230	0.5495
	CNA172	65.9557	2.8749	68.8307
	CNA182	0.5777	0.0252	0.6029
	CNA206	0.0439	0.0019	0.0458
	CNA20T	0.0219	0.0010	0.0229
	COMSEP	1.2286	0.0536	1.2821
	GASEPF	7.9598	0.3504	8.3102
	GASEPV	1.4992	0.0653	1.5645
	PA30	0.2779	0.0121	0.2900
Turboprop	CNA208	0.1613	0.0293	0.1905
	CNA441	0.0621	0.0049	0.0670
	DHC6	0.3133	0.3061	0.6194
	DHC830	0.0414	0.0033	0.0447
	SF340	0.0098	0.0107	0.0205
Total		**79.7645**	**3.9028**	**83.6673**

NOTES:
ANP ID – an Aviation Environmental Design Tool Aircraft Noise and Performance data profile with an aircraft type aircraft noise profile identification code
Touch and go operations include one landing and one takeoff.
Day – 7:00 a.m. to 9:59 p.m.
Night – 10:00 p.m. to 6:59 a.m.
Totals may not add due to rounding.
SOURCES: Boca Raton Airport Authority, Aircraft Noise Monitoring System, Aircraft Radar and Flight Header Data for CY2024 (aircraft types); Boca Raton Airport Traffic Control Tower Operations Log; Federal Aviation Administration, Traffic Flow Management System Counts, http://aspm.faa.gov/ (aircraft types; accessed January 14, 2025); Federal Aviation Administration, Aviation Environmental Design Tool (AEDT) Version 3g, August 2024 (ANP ID); Ricondo & Associates, Inc., August 2025 (analysis and forecast).

C.2 RUNWAY USE

Tables C-7, **C-8**, and **C-9** present the data for arrival, departure, and touch and go operations, respectively, at the Airport, broken down by fixed-wing aircraft type, runway, and time of day. Runway End 5 is the primary runway for both arrivals and departures across all fixed-wing aircraft types, reflecting its dominant role in accommodating fixed-wing traffic flow and operational patterns.

TABLE C-7 ARRIVAL RUNWAY USE BY AIRCRAFT CATEGORY AND TIME OF DAY – 2025 EXISTING CONDITIONS AND 2030 FUTURE CONDITIONS

	DAY			NIGHT			
AIRCRAFT TYPE	RUNWAY 5	RUNWAY 23	TOTAL	RUNWAY 5	RUNWAY 23	TOTAL	TOTAL
Jet	72.8%	20.8%	93.6%	4.6%	1.7%	6.4%	100%
Piston	72.6%	20.0%	92.6%	5.9%	1.5%	7.4%	100%
Turboprop	73.8%	19.9%	93.7%	4.2%	2.1%	6.3%	100%
Total	**72.8%**	**20.5%**	**93.3%**	**5.0%**	**1.7%**	**6.7%**	**100%**

NOTES:
Day – 7:00 a.m. to 9:59 p.m.
Night – 10:00 p.m. to 6:59 a.m.
Totals may not add due to rounding.
SOURCES: Boca Raton Airport Authority, Aircraft Noise Monitoring System, Aircraft Radar and Flight Header Data for CY2024 (aircraft types); Boca Raton Airport Traffic Control Tower Operations Log; Federal Aviation Administration, Traffic Flow Management System Counts, http://aspm.faa.gov/ (aircraft types; accessed January 14, 2025); Ricondo & Associates, Inc., August 2025 (analysis).

TABLE C-8 DEPARTURE RUNWAY USE BY AIRCRAFT CATEGORY AND TIME OF DAY – 2025 EXISTING CONDITIONS AND 2030 FUTURE CONDITIONS

	DAY			NIGHT			
AIRCRAFT TYPE	RUNWAY 5	RUNWAY 23	TOTAL	RUNWAY 5	RUNWAY 23	TOTAL	TOTAL
Jet	74.4%	21.6%	96.0%	3.2%	0.8%	4.0%	100%
Piston	74.9%	19.2%	94.1%	4.5%	1.4%	5.9%	100%
Turboprop	74.9%	20.1%	95.0%	3.6%	1.3%	5.0%	100%
Total	**74.6%**	**20.6%**	**95.2%**	**3.7%**	**1.0%**	**4.8%**	**100%**

NOTES:
Day – 7:00 a.m. to 9:59 p.m.
Night – 10:00 p.m. to 6:59 a.m.
Totals may not add due to rounding.
SOURCES: Boca Raton Airport Authority, Aircraft Noise Monitoring System, Aircraft Radar and Flight Header Data for CY2024 (aircraft types); Boca Raton Airport Traffic Control Tower Operations Log; Federal Aviation Administration, Traffic Flow Management System Counts, http://aspm.faa.gov/ (aircraft types; accessed January 14, 2025); Ricondo & Associates, Inc., August 2025 (analysis).

TABLE C-9 TOUCH AND GO RUNWAY USE BY AIRCRAFT CATEGORY AND TIME OF DAY – 2025 EXISTING CONDITIONS AND 2030 FUTURE CONDITIONS

	DAY			NIGHT			
AIRCRAFT TYPE	RUNWAY 5	RUNWAY 23	TOTAL	RUNWAY 5	RUNWAY 23	TOTAL	TOTAL
Jet	68.1%	20.1%	88.3%	10.6%	1.2%	11.7%	100%
Piston	76.3%	19.6%	95.8%	3.2%	0.9%	4.2%	100%
Turboprop	49.1%	12.6%	61.7%	27.1%	11.2%	38.3%	100%
Total	**75.8%**	**19.5%**	**95.3%**	**3.6%**	**1.1%**	**4.7%**	**100%**

NOTES:
Touch and go operations include one landing and one takeoff.
Day – 7:00 a.m. to 9:59 p.m.
Night – 10:00 p.m. to 6:59 a.m.
Totals may not add due to rounding.
SOURCES: Boca Raton Airport Authority, Aircraft Noise Monitoring System, Aircraft Radar and Flight Header Data for CY2024 (aircraft types); Boca Raton Airport Traffic Control Tower Operations Log; Federal Aviation Administration, Traffic Flow Management System Counts, http://aspm.faa.gov/ (aircraft types; accessed January 14, 2025); Ricondo & Associates, Inc., August 2025 (analysis).

Table C-10 presents the time-of-day distribution of modeled helicopter operations at the Airport. For this analysis, helicopter operational patterns are assumed to remain consistent between 2025 and 2030, reflecting the expectation of stable helicopter traffic patterns within the operational environment at the Airport.

TABLE C-10 HELICOPTER OPERATIONS BY TIME OF DAY – 2025 EXISTING CONDITIONS AND 2030 FUTURE CONDITIONS

TIME OF DAY	ARRIVAL	DEPARTURE	TOTAL
Day	49%	51%	100%
Night	59%	41%	100%
Total	**50%**	**50%**	**100%**

NOTES:
Touch and go operations are included in arrival and departure operations for modeling purposes.
Day – 7:00 a.m. to 9:59 p.m.
Night – 10:00 p.m. to 6:59 a.m.
Totals may not add due to rounding.
SOURCES: Boca Raton Airport Authority, Aircraft Noise Monitoring System, Aircraft Radar and Flight Header Data for CY2024 (aircraft types); Boca Raton Airport Traffic Control Tower Operations Log; Federal Aviation Administration, Traffic Flow Management System Counts, http://aspm.faa.gov/ (aircraft types; accessed January 14, 2025); Ricondo & Associates, Inc., August 2025 (analysis).

C.3 FLIGHT TRACKS

Flight tracks are the specific routes that aircraft follow during arrivals and departures. To develop these tracks for use in the AEDT, 2024 Aircraft Noise Monitoring System radar data were analyzed, and flights tracks were established as described in Section 4.3.6. **Tables C-11**, **C-12**, and **C-13** summarize the flight track data for arrival, departure, and touch and go operations, respectively, used to model aircraft noise exposure in the AEDT. Each table presents the AAD operations assigned to each flight track by aircraft type, runway end, and time of day. As no changes to the runway geometry are planned, and the FAA has not identified any reasonably foreseeable changes to air traffic procedures at BCT, flight tracks are expected to remain unchanged through 2030. Supplemental flight track exhibits are provided in **Appendix C.2**.

TABLE C-11 (1 OF 3) ANNUAL AVERAGE DAY AIRCRAFT ARRIVAL OPERATIONS BY FLIGHT TRACK – 2025 EXISTING CONDITIONS AND 2030 FUTURE CONDITIONS

AIRCRAFT TYPE	RUNWAY END	MODELED TRACK ID	SUBTRACKS	DAY	NIGHT
Jet	23	23AE	3	0.6756	0.0564
		23AFXEL	1	0.0452	0.0038
		23AFXER	3	0.0875	0.0073
		23AN1	3	1.3059	0.1091
		23AN10	3	0.9621	0.0804
		23AN11	3	0.9953	0.0831
		23AN12	1	0.0724	0.0060
		23AN13	3	0.1659	0.0139
		23AN14	3	0.1991	0.0166
		23AN3	3	1.0677	0.0892
		23AN4	3	0.2895	0.0242
		23AN5	3	0.7329	0.0612
		23AN7	3	0.5067	0.0423
		23AN8	3	0.8927	0.0746
		23AS1	3	0.3106	0.0259
		23AS2	3	0.1086	0.0091
		23AS3	3	0.1991	0.0166
		23AS4	3	0.2684	0.0224
		23AW1	1	0.0754	0.0063
		23AW2	3	0.1146	0.0096
		23AW3	3	0.3287	0.0275
		23 Total		**9.4039**	**0.7854**
	5	05AE1	3	1.7336	0.1103
		05AE2	3	0.1466	0.0093
		05AE3	3	0.1848	0.0118
		05AFXE	3	0.1243	0.0079
		05AN1	3	1.9790	0.1259
		05AN10	3	1.2938	0.0823
		05AN2	3	0.0637	0.0041
		05AN3	5	0.5959	0.0379
		05AN4	7	12.7726	0.8127
		05AN5	3	3.0179	0.1920
		05AN6	5	2.3200	0.1476
		05AN7	3	1.0739	0.0683
		05AN8	3	2.2658	0.1442
		05AN9	3	1.8069	0.1150
		05APMP	1	0.0478	0.0030
		05AS1	3	0.1307	0.0083
		05AS2	3	0.5609	0.0357
		05AS3	3	0.8732	0.0556
		05AS4	3	0.2741	0.0174
		05AS5	3	0.4111	0.0262
		05AW1	3	0.0351	0.0022
		05AW2	3	0.2167	0.0138
		05AW3	3	0.8349	0.0531
		05AW4	3	0.1020	0.0065
		5 Total		**32.8653**	**2.0910**

TABLE C-11 (2 OF 3) ANNUAL AVERAGE DAY AIRCRAFT ARRIVAL OPERATIONS BY FLIGHT TRACK – 2025 EXISTING CONDITIONS AND 2030 FUTURE CONDITIONS

AIRCRAFT TYPE	RUNWAY END	MODELED TRACK ID	SUBTRACKS	DAY	NIGHT
Piston	23	23APE	3	0.1668	0.0126
		23APFXL	1	0.0752	0.0057
		23APFXR	1	0.1995	0.0151
		23APMPL	3	0.3368	0.0254
		23APMPR	1	0.2027	0.0153
		23APN	3	0.5690	0.0430
		23APN1	3	0.2093	0.0158
		23APNE	1	0.8306	0.0627
		23APNW	5	0.8601	0.0650
		23APNW1	3	0.2126	0.0161
		23APSE	3	0.0883	0.0067
		23APSEL	3	0.3826	0.0289
		23APSWR	3	0.3336	0.0252
		23APW	5	1.4847	0.1121
		23 Total		**5.9517**	**0.4495**
	5	05AFXEC	1	0.4535	0.0365
		05AFXEL	3	0.5448	0.0439
		05AFXER	3	0.5291	0.0426
		05APE	3	0.3433	0.0276
		05APMPC	1	0.1764	0.0142
		05APMPL	3	0.6173	0.0497
		05APMPR	3	0.7464	0.0601
		05APMR2	1	0.2488	0.0200
		05APNE	3	0.5574	0.0449
		05APNE1	5	2.3116	0.1862
		05APNE2	3	0.6015	0.0484
		05APNE3	3	0.1291	0.0104
		05APNER	3	0.0472	0.0038
		05APNW1	5	3.3067	0.2663
		05APNW2	5	4.1822	0.3368
		05APNW3	3	0.6550	0.0528
		05APNW5	3	0.1953	0.0157
		05APNWR	3	1.4046	0.1131
		05APSE	3	0.4913	0.0396
		05APSE1	3	0.3527	0.0284
		05APSE2	5	0.4976	0.0401
		05APSW1	5	3.2280	0.2600
		5 Total		**21.6196**	**1.7412**
Turboprop	23	23APE	3	0.0281	0.0030
		23APFXL	1	0.0127	0.0014
		23APFXR	1	0.0336	0.0036
		23APMPL	3	0.0568	0.0061
		23APMPR	1	0.0342	0.0036
		23APN	3	0.0959	0.0102
		23APN1	3	0.0353	0.0038
		23APNE	1	0.1400	0.0149
		23APNW	5	0.1449	0.0155
		23APNW1	3	0.0358	0.0038
		23APSE	3	0.0149	0.0016
		23APSEL	3	0.0645	0.0069
		23APSWR	3	0.0562	0.0060
		23APW	5	0.2502	0.0267
		23 Total		**1.0030**	**0.1071**

TABLE C-11 (3 OF 3) ANNUAL AVERAGE DAY AIRCRAFT ARRIVAL OPERATIONS BY FLIGHT TRACK – 2025 EXISTING CONDITIONS AND 2030 FUTURE CONDITIONS

AIRCRAFT TYPE	RUNWAY END	MODELED TRACK ID	SUBTRACKS	DAY	NIGHT
Turboprop (continued)	5	05AFXEC	1	0.0778	0.0045
		05AFXEL	3	0.0935	0.0054
		05AFXER	3	0.0908	0.0052
		05APE	3	0.0589	0.0034
		05APMPC	1	0.0303	0.0017
		05APMPL	3	0.1059	0.0061
		05APMPR	3	0.1280	0.0074
		05APMR2	1	0.0427	0.0025
		05APNE	3	0.0956	0.0055
		05APNE1	5	0.3965	0.0229
		05APNE2	3	0.1032	0.0060
		05APNE3	3	0.0222	0.0013
		05APNER	3	0.0081	0.0005
		05APNW1	5	0.5673	0.0328
		05APNW2	5	0.7175	0.0414
		05APNW3	3	0.1124	0.0065
		05APNW5	3	0.0335	0.0019
		05APNWR	3	0.2410	0.0139
		05APSE	3	0.0843	0.0049
		05APSE1	3	0.0605	0.0035
		05APSE2	5	0.0854	0.0049
		05APSW1	5	0.5538	0.0320
		5 Total		**3.7088**	**0.2142**
Helicopter	GAPAD	HANW	3	0.3020	0.0241
		HASE	3	0.2481	0.0198
		HASW	3	0.1330	0.0106
		HHAFXE	1	0.0431	0.0034
		HHAHAN	3	0.1582	0.0126
		HHAHAW	3	0.1330	0.0106
		HHAPMP	1	0.0431	0.0034
		GAPAD Total		**1.0605**	**0.0847**
Total				**75.6129**	**5.4732**

NOTES:
GAPAD – General aviation helicopter pad
Day – 7:00 a.m. to 9:59 p.m.
Night – 10:00 p.m. to 6:59 a.m.
Totals may not add due to rounding.

SOURCES: Boca Raton Airport Authority, Aircraft Noise Monitoring System, Aircraft Radar and Flight Header Data for CY2024 (aircraft types); Boca Raton Airport Traffic Control Tower Operations Log; Federal Aviation Administration, Traffic Flow Management System Counts, http://aspm.faa.gov/ (aircraft types; accessed January 14, 2025); Ricondo & Associates, Inc., August 2025 (analysis).

TABLE C-12 (1 OF 3) ANNUAL AVERAGE DAY AIRCRAFT DEPARTURE OPERATIONS BY FLIGHT TRACK – 2025 EXISTING CONDITIONS AND 2030 FUTURE CONDITIONS

AIRCRAFT TYPE	RUNWAY END	MODELED TRACK ID	SUBTRACKS	DAY	NIGHT
Jet	23	23DE1	3	0.0388	0.0014
		23DE2	3	1.8995	0.0690
		23DFXEL	3	0.0356	0.0013
		23DFXER	3	0.0938	0.0034
		23DN1	3	0.3786	0.0137
		23DN2	3	0.4886	0.0177
		23DN3	5	3.6857	0.1338
		23DN4	3	1.2491	0.0454
		23DN5	3	0.1197	0.0043
		23DS1	3	0.4627	0.0168
		23DS2	3	0.0841	0.0031
		23DS3	1	0.0356	0.0013
		23DW1	5	1.1714	0.0425
		23 Total		**9.7433**	**0.3538**
	5	05DE1	3	0.1066	0.0047
		05DE2	3	0.0258	0.0011
		05DE3	3	0.2940	0.0129
		05DFXEL	3	0.0614	0.0027
		05DFXER	3	0.1906	0.0083
		05DN1	3	0.6397	0.0280
		05DN10	3	0.6720	0.0294
		05DN11	3	0.2617	0.0114
		05DN2	3	0.5169	0.0226
		05DN3	3	0.6526	0.0285
		05DN4	7	7.7149	0.3374
		05DN5	3	0.1098	0.0048
		05DN6	3	0.8400	0.0367
		05DN7	5	4.9914	0.2183
		05DN8	3	2.0676	0.0904
		05DN9	7	8.1511	0.3565
		05DPMP	1	0.0549	0.0024
		05DS1	3	1.4441	0.0632
		05DS2	3	0.1486	0.0065
		05DS3	3	0.5880	0.0257
		05DS4	3	0.0355	0.0016
		05DS5	3	0.0582	0.0025
		05DS6	3	0.1228	0.0054
		05DS7	3	0.2423	0.0106
		05DS8	1	0.1551	0.0068
		05DW2	3	0.1745	0.0076
		05DW3	3	1.4990	0.0656
		05DW4	5	1.1598	0.0507
		05DW5	3	0.6009	0.0263
		5 Total		**33.5799**	**1.4687**

TABLE C-12 (2 OF 3) ANNUAL AVERAGE DAY AIRCRAFT DEPARTURE OPERATIONS BY FLIGHT TRACK – 2025 EXISTING CONDITIONS AND 2030 FUTURE CONDITIONS

AIRCRAFT TYPE	RUNWAY END	MODELED TRACK ID	SUBTRACKS	DAY	NIGHT
Piston	23	23DPE	3	0.1434	0.0103
		23DPFXL	1	0.0765	0.0055
		23DPFXR	3	0.2071	0.0149
		23DPMPL	3	0.3473	0.0250
		23DPMPR	3	0.2230	0.0160
		23DPN	5	0.8156	0.0587
		23DPNE	1	0.1784	0.0128
		23DPNER	1	0.0064	0.0005
		23DPNW	3	2.0486	0.1474
		23DPSE	3	0.3218	0.0232
		23DPSE2	3	0.2135	0.0154
		23DPW	5	1.1406	0.0821
		23 Total		**5.7221**	**0.4117**
	5	05DPFXL	3	0.5876	0.0352
		05DPFXR	3	0.4150	0.0249
		05DPMPL	3	0.8665	0.0519
		05DPMPR	3	1.2450	0.0746
		05DPN	5	4.2594	0.2551
		05DPN1	3	2.1447	0.1284
		05DPN2	3	0.1129	0.0068
		05DPNE	3	0.2457	0.0147
		05DPNE1	3	0.6673	0.0400
		05DPNE2	3	0.4747	0.0284
		05DPNW	5	5.9127	0.3541
		05DPNW1	3	0.7835	0.0469
		05DPNW2	3	1.4309	0.0857
		05DPSE	5	0.9429	0.0565
		05DPSW	3	0.6208	0.0372
		05DPW	3	1.3114	0.0785
		05DPW1	3	0.2722	0.0163
		5 Total		**22.2931**	**1.3351**
Turboprop	23	23DPE	3	0.0253	0.0017
		23DPFXL	1	0.0135	0.0009
		23DPFXR	3	0.0366	0.0025
		23DPMPL	3	0.0613	0.0041
		23DPMPR	3	0.0394	0.0027
		23DPN	5	0.1441	0.0097
		23DPNE	1	0.0315	0.0021
		23DPNER	1	0.0011	0.0001
		23DPNW	3	0.3619	0.0244
		23DPSE	3	0.0568	0.0038
		23DPSE2	3	0.0377	0.0025
		23DPW	5	0.2015	0.0136
		23 Total		**1.0108**	**0.0680**

TABLE C-12 (3 OF 3) ANNUAL AVERAGE DAY AIRCRAFT DEPARTURE OPERATIONS BY FLIGHT TRACK – 2025 EXISTING CONDITIONS AND 2030 FUTURE CONDITIONS

AIRCRAFT TYPE	RUNWAY END	MODELED TRACK ID	SUBTRACKS	DAY	NIGHT
Turboprop (continued)	5	05DPFXL	3	0.0993	0.0049
		05DPFXR	3	0.0701	0.0035
		05DPMPL	3	0.1464	0.0073
		05DPMPR	3	0.2104	0.0104
		05DPN	5	0.7198	0.0358
		05DPN1	3	0.3624	0.0180
		05DPN2	3	0.0191	0.0009
		05DPNE	3	0.0415	0.0021
		05DPNE1	3	0.1128	0.0056
		05DPNE2	3	0.0802	0.0040
		05DPNW	5	0.9992	0.0496
		05DPNW1	3	0.1324	0.0066
		05DPNW2	3	0.2418	0.0120
		05DPSE	5	0.1593	0.0079
		05DPSW	3	0.1049	0.0052
		05DPW	3	0.2216	0.0110
		05DPW1	3	0.0460	0.0023
		5 Total		**3.7672**	**0.1871**
Helicopter	GAPAD	HDNE	1	0.1117	0.0060
		HDNW	3	0.2792	0.0151
		HDSE	3	0.3092	0.0167
		HDSW	1	0.1245	0.0067
		HHDFXE	1	0.0429	0.0023
		HHDHDN	1	0.0859	0.0046
		HHDHDW	1	0.0816	0.0044
		HHDPMP	1	0.0515	0.0028
		GAPAD Total		**1.0866**	**0.0586**
Total				**77.2030**	**3.8831**

NOTES:
GAPAD – General aviation helicopter pad
Touch and go operations include one landing and one takeoff.
Day – 7:00 a.m. to 9:59 p.m.
Night – 10:00 p.m. to 6:59 a.m.
Totals may not add due to rounding.
SOURCES: Boca Raton Airport Authority, Aircraft Noise Monitoring System, Aircraft Radar and Flight Header Data for CY2024 (aircraft types); Boca Raton Airport Traffic Control Tower Operations Log; Federal Aviation Administration, Traffic Flow Management System Counts, http://aspm.faa.gov/ (aircraft types; accessed January 14, 2025); Ricondo & Associates, Inc., August 2025 (analysis).

TABLE C-13 ANNUAL AVERAGE DAY AIRCRAFT TOUCH AND GO OPERATIONS BY FLIGHT TRACK – 2025 EXISTING CONDITIONS AND 2030 FUTURE CONDITIONS

AIRCRAFT TYPE	RUNWAY END	MODELED TRACK ID	SUBTRACKS	DAY	NIGHT
Jet	23	23JTL	2	0.0622	0.0037
		23JTR	3	0.1526	0.0091
		23 Total		**0.2148**	**0.0129**
	5	05JTL	3	0.6981	0.1111
		05JTR	1	0.0291	0.0046
		5 Total		**0.7271**	**0.1157**
Piston	23	23PTL	3	1.8709	0.0908
		23PTR	7	11.8770	0.5765
		23 Total		13.7479	0.6674
	5	05PTL	7	50.3167	2.1325
		05PTR	3	3.2522	0.1378
		5 Total		**53.5689**	**2.2703**
Turboprop	23	23JTL	2	0.0006	0.0003
		23JTR	3	0.0016	0.0008
		23PTL	3	0.0150	0.0105
		23PTR	7	0.0951	0.0668
		23 Total		**0.1123**	**0.0784**
	5	05JTL	3	0.0073	0.0093
		05JTR	1	0.0003	0.0004
		05PTL	7	0.4029	0.2472
		05PTR	3	0.0260	0.0160
		5 Total		**0.4365**	**0.2728**
Total				**68.8077**	**3.4175**

NOTES:
Touch and go operations include one landing and one takeoff.
Day – 7:00 a.m. to 9:59 p.m.
Night – 10:00 p.m. to 6:59 a.m.
Totals may not add due to rounding.
SOURCES: Boca Raton Airport Authority, Aircraft Noise Monitoring System, Aircraft Radar and Flight Header Data for CY2024 (aircraft types); Boca Raton Airport Traffic Control Tower Operations Log; Federal Aviation Administration, Traffic Flow Management System Counts, http://aspm.faa.gov/ (aircraft types; accessed January 14, 2025); Ricondo & Associates, Inc., August 2025 (analysis).

C.4 STAGE LENGTH

As described in Section 4.3.4, aircraft noise varies with takeoff weight. Heavier aircraft require higher thrust settings to reach takeoff speed, use more runway length, and climb more slowly than lighter aircraft, exposing a larger land area to higher noise levels. To account for this, the AEDT includes up to 10 departure climb profiles corresponding to various departure weights based on the fuel load and aircraft type. **Table C-14** presents the departure stage length distributions by ANP ID aircraft type used in modeling noise from jet aircraft. All stage lengths for piston and turboprop aircraft were modeled as stage length 1, as were all arrivals. Stage lengths are assumed to remain constant between the 2025 and 2030 study years.

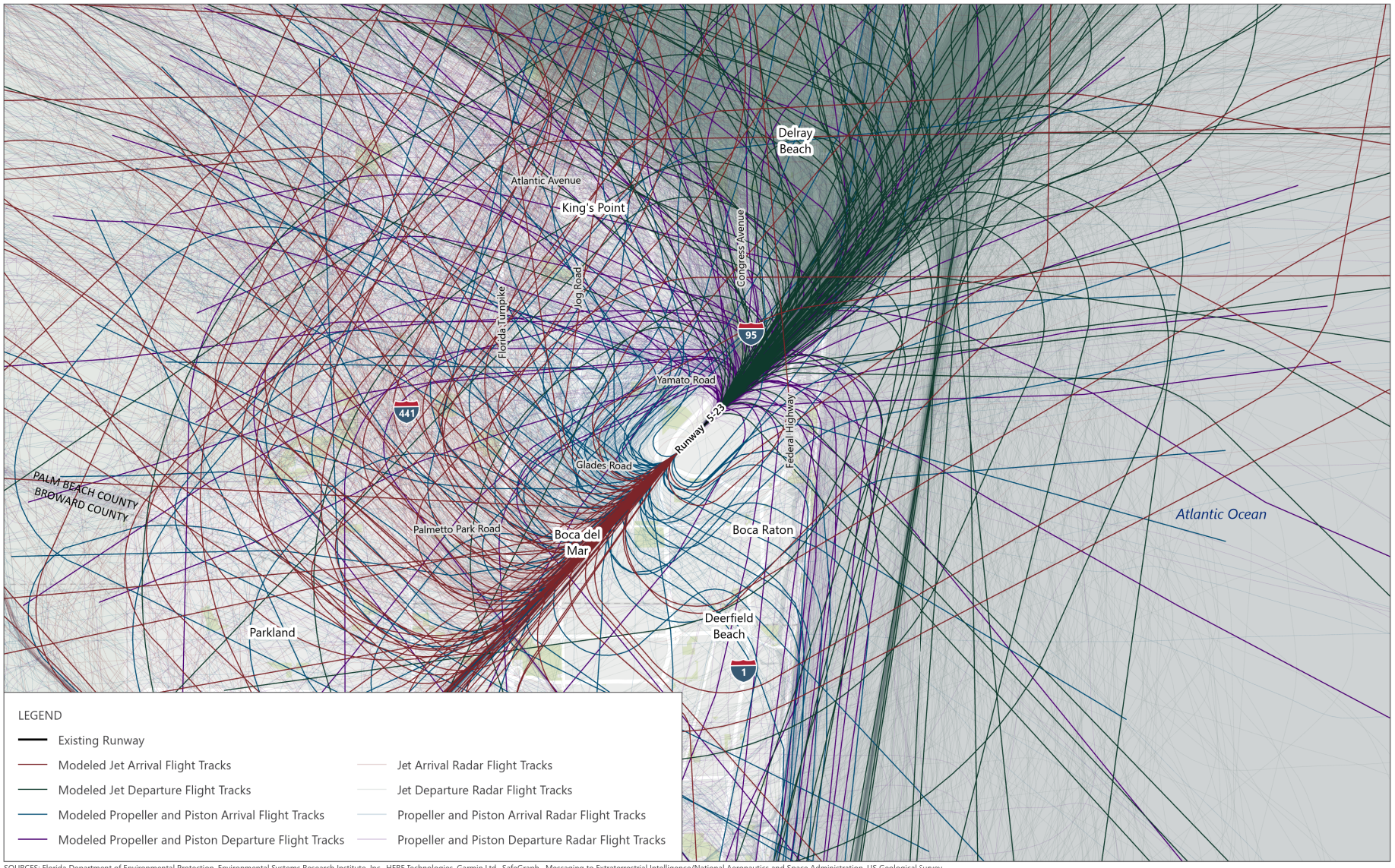
TABLE C-14 JET DEPARTURE STAGE LENGTH DISTRIBUTION BY ANP ID – 2025 EXISTING CONDITIONS AND 2030 FUTURE CONDITIONS

	STAGE LENGTH						
ANP ID	1	2	3	4	5	6	TOTAL
BD-700-1A10	21.4%	49.2%	20.6%	5.0%	0.0%	3.8%	100.0%
BD-700-1A11	38.9%	31.7%	20.6%	8.7%	0.0%	0.0%	100.0%
CIT3	100.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%
CL600	100.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%
CL601	100.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%
CNA500	100.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%
CNA510	100.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%
CNA525C	100.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%
CNA55B	100.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%
CNA560U	100.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%
CNA560XL	100.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%
CNA680	100.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%
CNA750	100.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%
CRJ9-ER	41.2%	42.0%	9.1%	7.7%	0.0%	0.0%	100.0%
ECLIPSE500	65.4%	34.2%	0.4%	0.0%	0.0%	0.0%	100.0%
EMB145	13.3%	81.8%	3.1%	1.9%	0.0%	0.0%	100.0%
FAL900EX	29.6%	43.5%	14.7%	11.6%	0.0%	0.6%	100.0%
G650ER	23.4%	43.7%	12.5%	15.6%	0.0%	4.7%	100.0%
GIV	100.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%
GV	100.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%
IA1125	100.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%
LEAR35	100.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%
MU3001	100.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%
T-38A	100.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%
Total	**91.4%**	**6.3%**	**1.4%**	**0.8%**	**0.0%**	**0.1%**	**100.0%**

NOTES:
ANP ID – an Aviation Environmental Design Tool Aircraft Noise and Performance data profile with an aircraft type aircraft noise profile identification code
Totals may not add due to rounding.
No aircraft were modeled for a stage length greater than 6.
Available departure stage length in AEDT for each aircraft was selected based on the departure city.
SOURCES: Federal Aviation Administration, Aviation Environmental Design Tool (AEDT) Version 3g, August 2024 (ANP ID); Ricondo & Associates, Inc., August 2025 (analysis).

APPENDIX C.2

Flight Tracks and Radar Data



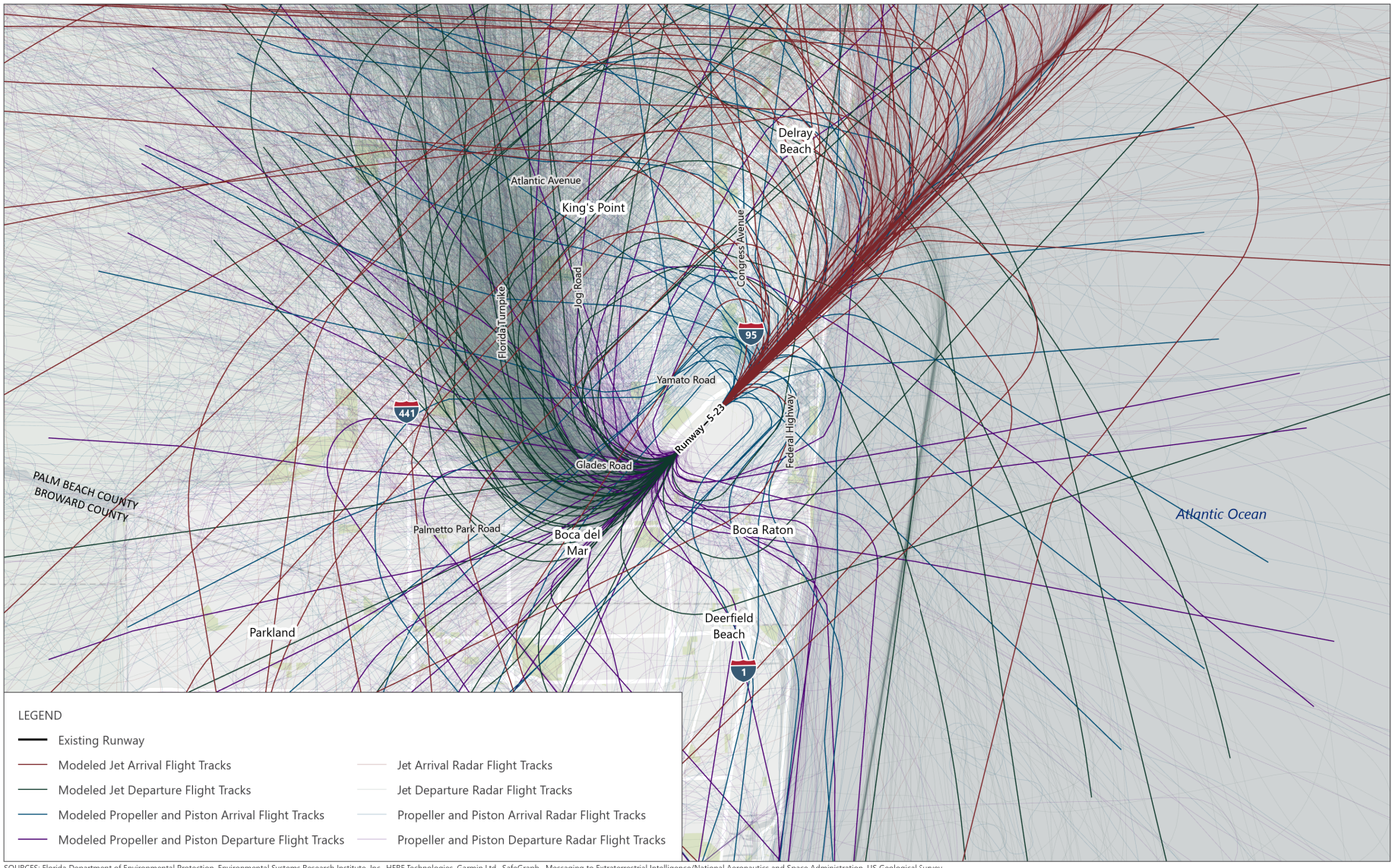
SOURCES: Florida Department of Environmental Protection, Environmental Systems Research Institute, Inc., HERE Technologies, Garmin Ltd., SafeGraph, Messaging to Extraterrestrial Intelligence/National Aeronautics and Space Administration, US Geological Survey, US Environmental Protection Agency, US National Park Service, and US Department of Agriculture, April 2025 (basemap); Boca Raton Airport Authority, 2017 (runway); US Census Bureau, 2021 (roads, parks); Boca Raton Airport Authority, Aircraft Noise Monitoring System (ANOMS), Aircraft Radar and Flight Header Data for CY2024, 2025 (radar tracks); Ricondo & Associates, Inc., July 2025 (modeled tracks).

NORTH 0 3 mi

EXHIBIT C-1

AVIATION ENVIRONMENTAL DESIGN TOOL AND RADAR FLIGHT TRACKS – RUNWAY 5

Project: P:\GIS\Projects\BCT\APRX\BCT_NoiseExposure_20251002.aprx Layout: BCT_NEM_ExC-1_FlightTracksRwy5_20251002

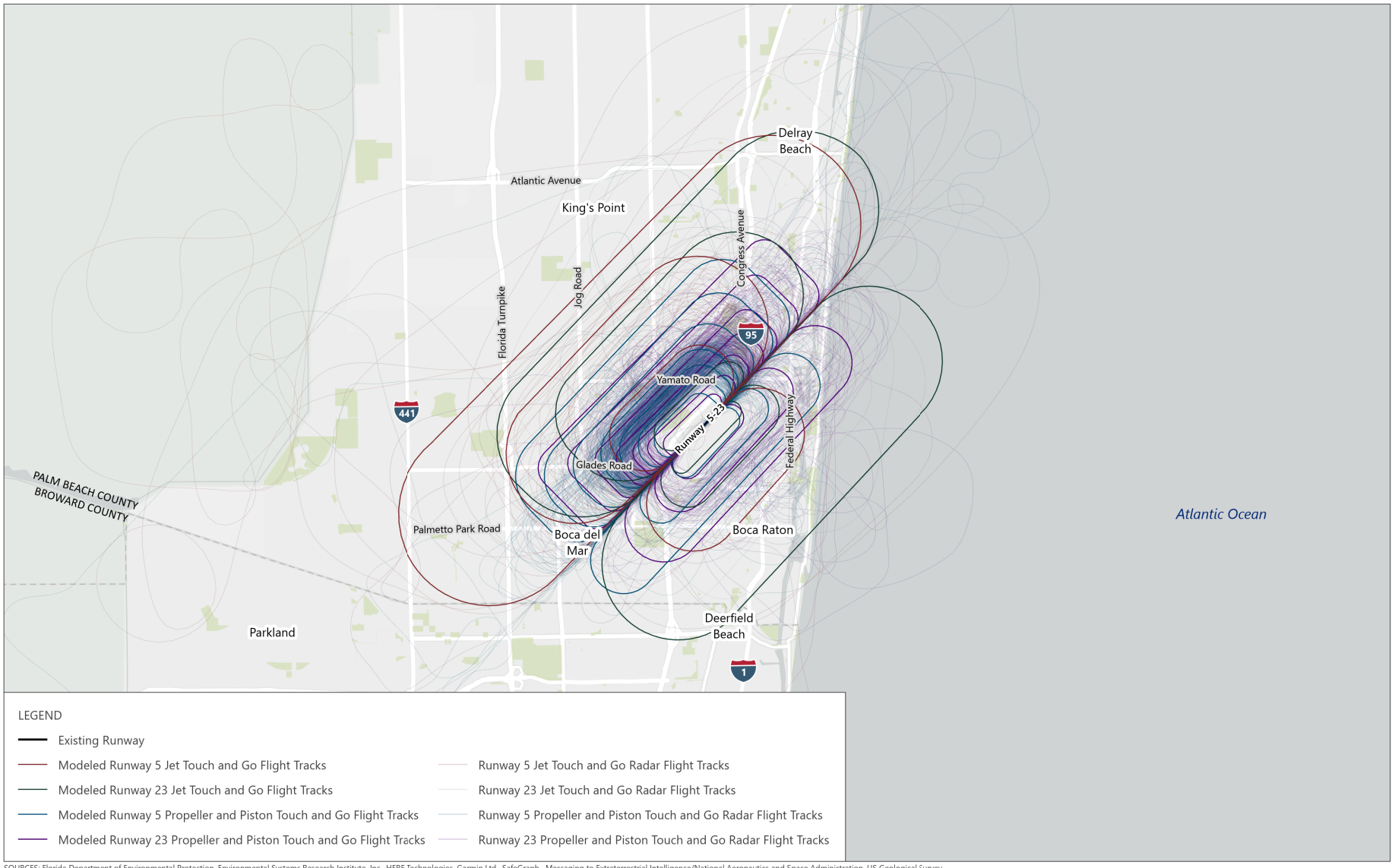


SOURCES: Florida Department of Environmental Protection, Environmental Systems Research Institute, Inc., HERE Technologies, Garmin Ltd., SafeGraph, Messaging to Extraterrestrial Intelligence/National Aeronautics and Space Administration, US Geological Survey, US Environmental Protection Agency, US National Park Service, and US Department of Agriculture, April 2025 (basemap); Boca Raton Airport Authority, 2017 (runway); US Census Bureau, 2021 (roads, parks); Boca Raton Airport Authority, Aircraft Noise Monitoring System (ANOMS), Aircraft Radar and Flight Header Data for CY2024, 2025 (radar tracks); Ricondo & Associates, Inc., July 2025 (modeled tracks).

EXHIBIT C-2

AVIATION ENVIRONMENTAL DESIGN TOOL AND RADAR FLIGHT TRACKS – RUNWAY 23

Project: P:\GIS\Projects\BCT\APRX\BCT_NoiseExposure_20251002.aprx Layout: BCT_NEM_ExC-2_FlightTracksRwy23_20251002



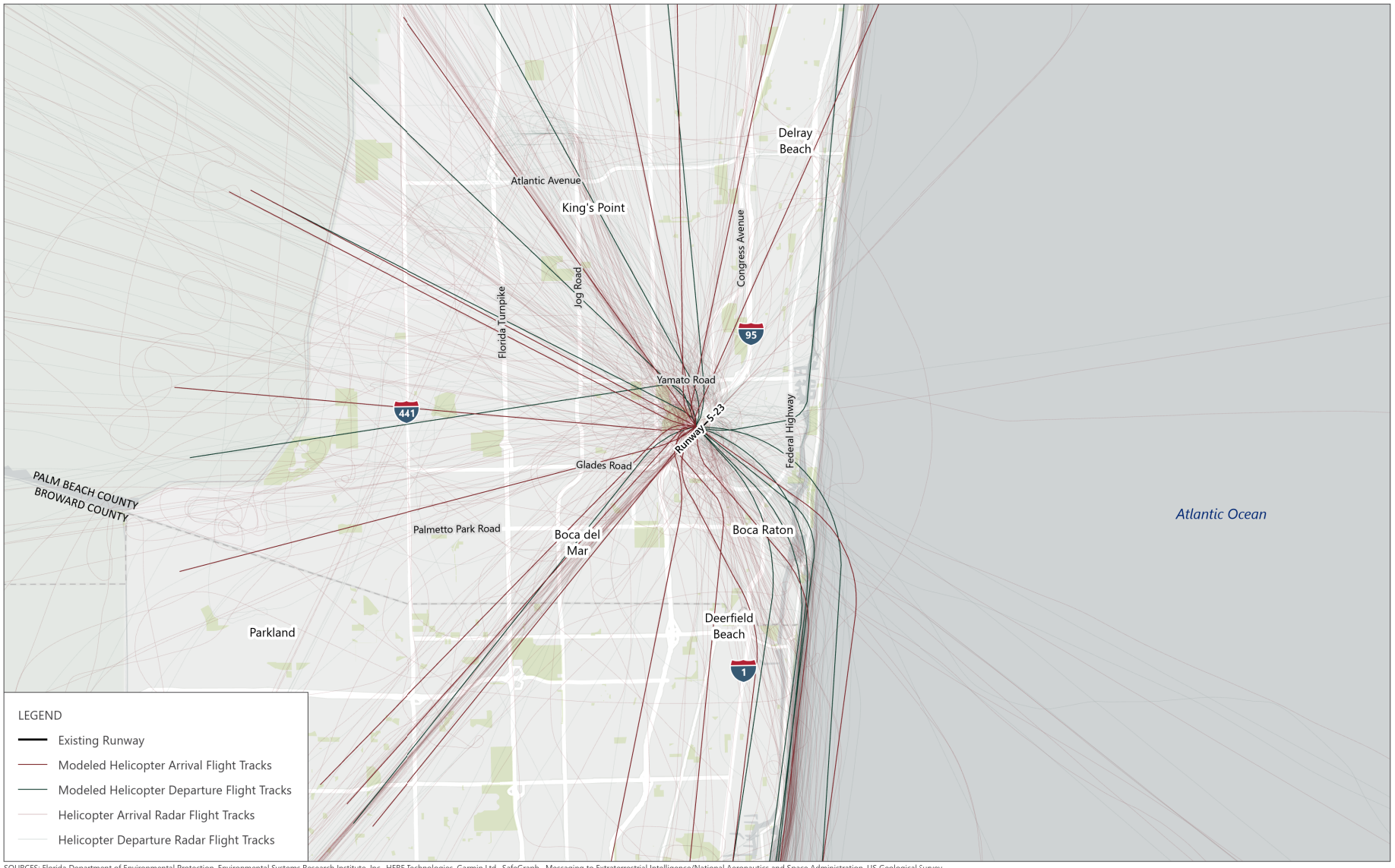
SOURCES: Florida Department of Environmental Protection, Environmental Systems Research Institute, Inc., HERE Technologies, Garmin Ltd., SafeGraph, Messaging to Extraterrestrial Intelligence/National Aeronautics and Space Administration, US Geological Survey, US Environmental Protection Agency, US National Park Service, and US Department of Agriculture, April 2025 (basemap); Boca Raton Airport Authority, 2017 (runway); US Census Bureau, 2021 (roads, parks); Boca Raton Airport Authority, Aircraft Noise Monitoring System (ANOMS), Aircraft Radar and Flight Header Data for CY2024, 2025 (radar tracks); Ricondo & Associates, Inc., July 2025 (modeled tracks).

NORTH 0 3 mi

EXHIBIT C-3

AVIATION ENVIRONMENTAL DESIGN TOOL AND RADAR FLIGHT TRACKS – TOUCH AND GO

Project: P:\GIS\Projects\BCT\APRX\BCT_NoiseExposure_20251002.aprx Layout: BCT_NEM_ExC-3_FlightTracksTNG_20251002



SOURCES: Florida Department of Environmental Protection, Environmental Systems Research Institute, Inc., HERE Technologies, Garmin Ltd., SafeGraph, Messaging to Extraterrestrial Intelligence/National Aeronautics and Space Administration, US Geological Survey, US Environmental Protection Agency, US National Park Service, and US Department of Agriculture, April 2025 (basemap); Boca Raton Airport Authority, 2017 (runway); US Census Bureau, 2021 (roads, parks); Boca Raton Airport Authority, Aircraft Noise Monitoring System (ANOMS), Aircraft Radar and Flight Header Data for CY2024, 2025 (radar tracks); Ricondo & Associates, Inc., July 2025 (modeled tracks).

NORTH 0 3 mi

EXHIBIT C-4

AVIATION ENVIRONMENTAL DESIGN TOOL AND RADAR FLIGHT TRACKS – HELICOPTER

Project: P:\GIS\Projects\BCT\APRX\BCT_NoiseExposure_20251002.aprx Layout: BCT_NEM_ExC-4_FlightTracksHelo_20251002