

Table S1 Emission of different aircraft with different engine using conventional aviation fuel

	Single aisle	Small twin aisle	Large twin aisle	Large quad	Regional jet	Business jet
Aircraft	737-800	787-8	777-200	A380	ERJ-145	G550
Engines	CFM56-7B27	Genx-1B67	GE90-85B	TRENT970	AE3007 A3	BR700-710C4-11
Engine NO.	2	2	2	4	2	2
Bypass ratio	5.1	9.39	8.36	7.5	5.1	4.05
Full thrust /kN	121.4	255.3	419.25	334.7	31.5	68.77
Flight range	5665	15190	14260	15700	2873	12500
LTO FC, kg*	912	1644	2268	1960	300	588
Cruise SFC	3.53	6.57	9.31	16.28	1.68	1.15
Envelope flight, kg	20871	101217	137270	259484	5094	15025
HC /g*	670	488	476	162	802	602
CO /g*	6872	14142	13052	12922	4976	8898
NO _x /g *	13438	19518	48956	33110	2858	5700
CH ₄ /g*	36	59	185	159	11	24
N ₂ O /g	70	115	363	311	22	47
CO ₂ /kg	2797	4579	14436	12362	866	1846
PM10 /g	21	28	39	79	7	20
SO _x /g	1,243	2,036	6,406	5,488	386	823

* ICAO Emission Database (<https://www.easa.europa.eu/en/domains/environment/icao-aircraft-engine-emissions-databank>)