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rdcaviation

European Emissions Report

QUARTER 4 - 2009

The Essential Guide to
European Aviation Emissions

in association with:

innovata

EU Aviation Emissions Report

Quarter 4 2009

RDC Aviation Ltd is a provider of software, consultancy, environmental emissions analysis and data to the international aviation industry.

For additional information, assistance or further details about RDC Aviation Ltd and its products, please contact;

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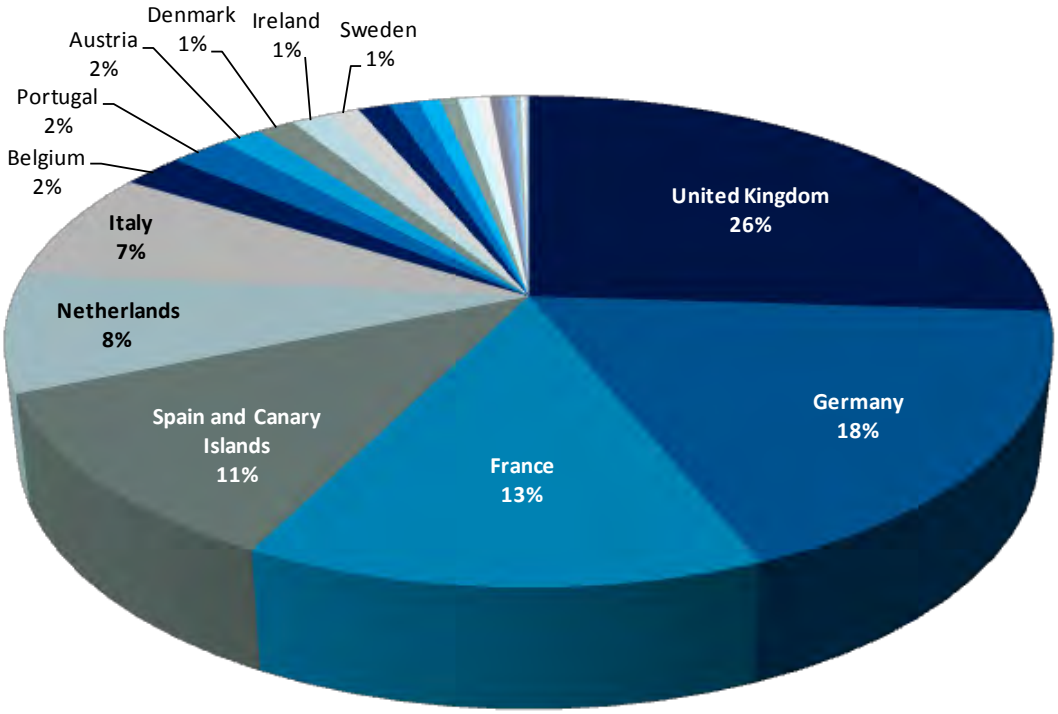
www.rdcaviation.com

Summary

CO_2 By Country – December 2009

	Tonnes CO_2	
Country	December 2009	Rolling 12 months
United Kingdom	4,596,993	60,299,429
Germany	3,173,059	41,909,957
France	2,386,365	30,904,066
Spain and Canary Islands	2,009,614	27,131,409
Netherlands	1,379,225	17,163,226
Italy	1,288,815	17,665,141
Belgium	392,860	4,860,394
Portugal	377,054	5,023,801
Austria	267,339	3,549,605
Denmark	247,729	3,413,653
Ireland	232,501	3,612,170
Sweden	220,084	3,213,904
Greece	205,401	4,172,335
Finland	193,314	2,616,950
Poland	140,401	1,903,127
Romania	119,305	1,385,095
Czech Republic	111,121	1,693,810
Cyprus	95,429	1,454,900
Hungary	81,646	1,179,597
Latvia	46,325	607,824
Others	127,439	1,928,874

CO_2 Output by Country - December 2009



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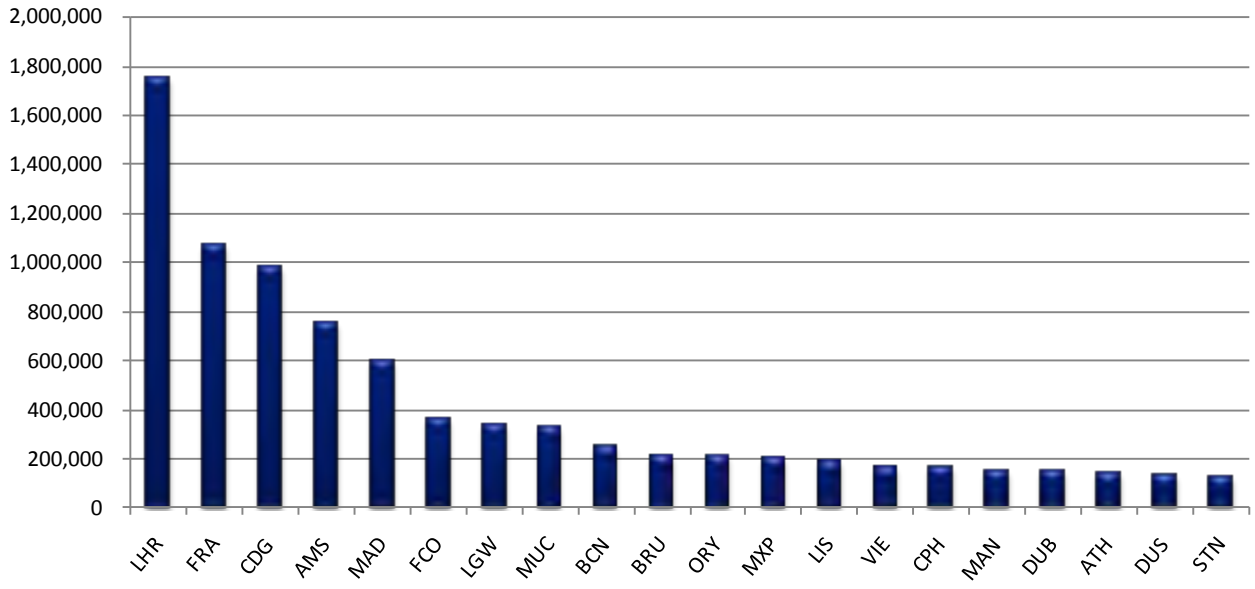
Metrics

The tables and charts below depict estimated CO_2 output from scheduled commercial aviation at an origin or destination within the scope of ETS. The data has been generated using methodology for calculating fuel burn and conversion factors as directed by the Intergovernmental Panel for Climate Change and ratified using proprietary RDC Aviation Ltd systems. Schedule feeds are taken from Innovata.

	Tonnes CO_2	
Airport	December 2009	Rolling 12 months
London - Heathrow Airport	1,755,582	21,982,830
Frankfurt International Airport	1,073,277	13,810,108
Paris - Charles De Gaulle Airport	980,821	12,617,366
Amsterdam-Schiphol Airport	758,281	9,556,079
Madrid - Barajas Airport	594,584	7,373,279
Rome - Fiumicino Airport	361,584	4,838,119
London - Gatwick Airport	340,479	4,650,726
Munich - Franz Josef Strauss Airport	326,580	4,358,053
Barcelona Airport	249,683	3,443,683
Brussels - National Airport	215,158	2,742,389
Paris – Orly	211,147	2,647,505
Milan - Malpensa Airport	207,050	2,700,983
Lisbon - Lisboa Airport	190,772	2,383,741
Vienna International Airport	167,344	2,236,773
Copenhagen Airport	163,787	2,300,947
Manchester International Airport	148,966	2,376,894
Dublin Airport	148,437	2,223,027
Athens - Eleftherios Venizelos	137,602	2,118,524
Dusseldorf Airport	132,724	1,999,325
London - Stansted Airport	126,942	1,800,347
Total - All Airports	11,984,687	163,382,915



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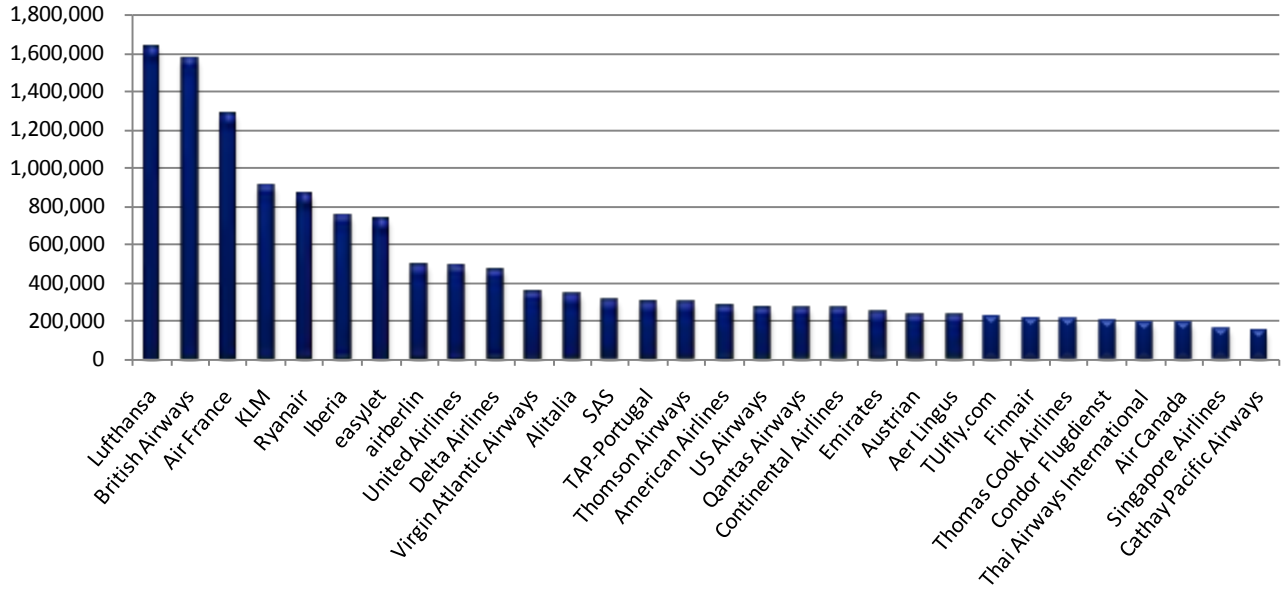
Metrics

Airline	Tonnes CO_2 December 2009	Rolling 12 months
British Airways	1,508,853	18,921,244
Lufthansa	1,444,140	19,045,017
Air France	1,239,949	15,623,617
KLM	867,550	11,016,567
Iberia	707,404	8,994,872
Ryanair	704,121	9,617,105
easyJet	548,988	7,565,568
United Airlines	460,468	5,854,564
Virgin Atlantic Airways	366,632	4,533,006
airberlin	360,307	4,877,073
Delta Airlines	343,634	5,564,615
Alitalia	320,446	4,013,846
TAP-Portugal	294,146	3,592,512
Qantas Airways	277,029	3,464,762
Emirates	252,772	2,941,452
American Airlines	239,141	3,317,744
Continental Airlines	227,728	3,305,588
SAS	217,553	3,575,975
Thai Airways International	204,198	2,296,063
Austrian	188,356	2,480,110
Aer Lingus	181,730	2,581,825
Finnair	175,932	2,458,971
Cathay Pacific Airways	162,900	2,008,373
Singapore Airlines	158,859	2,001,378
US Airways	150,659	2,570,936
Condor Flugdienst	143,922	2,090,105
Air Canada	128,927	1,883,218
Air China	124,921	1,489,296
Vueling Airlines	124,662	1,222,530
Air Europa Lineas Aereas	124,490	1,547,634
Total - All Airlines	17,586,650	235,391,304



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Calculation methodology

The IPCC calculation logic and emissions factors use a distance based formula for the estimation of CO_2 between airport pairs which may not reflect the efficiency of different airlines using similar aircraft types for example, aircraft variants are grouped together into high level aircraft families. This methodology however is recommended as a valid calculation technique for estimating CO_2 emissions and, without access to exact fuel burn data provides a consistent method of comparison. RDC Aviation can provide a more detailed analysis using proprietary systems and alternative methodologies as required.

Country focus

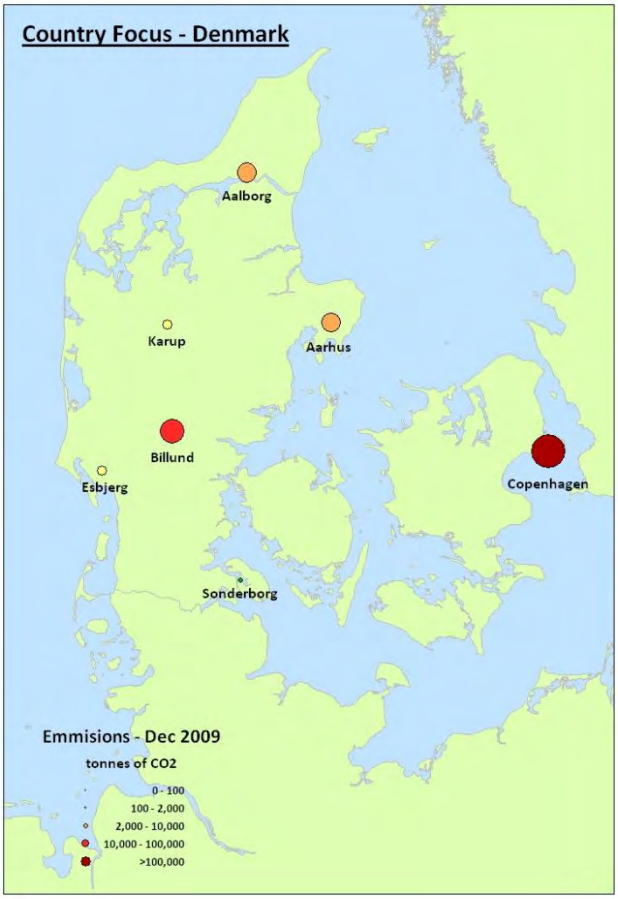
Each quarter, we will be providing a more detailed overview of emissions from an EU member state. This quarter, Denmark.

Airlines	Tonnes CO_2
SAS	94,421
Thai Airways International	20,163
Norwegian Air Shuttle	12,859
Cimber Air	12,401
Delta Airlines	9,687
% of total country	60.4%

Departing Airports	Tonnes CO_2
Copenhagen Airport	116,797
Billund Airport	6,367
Aalborg Airport	2,532
Aarhus - Tirstrup Airport	769
Bornholm Airport	329
% of total country	99.7%

Arriving Airports	Tonnes CO_2
Copenhagen Airport	116,426
Billund Airport	6,350
Aalborg Airport	2,495
Aarhus - Tirstrup Airport	785
Bornholm Airport	323
% of total country	99.7%

	Tonnes CO_2
Total Denmark	**247,729**
Domestic	6,317
Intra EU	112,197
Intercontinental	129,214



RDC Aviation offers comprehensive carbon management services including detailed analysis and forecasts for CO_2 and other greenhouse gas emissions, ETS impact assessment, and footprint consultancy. Through our strategic partners we also offer carbon advisory, procurement, trading and offsetting capability.

Contact Peter Hind on peter.hind@rdcaviation.com or by telephone on 44 (0) 115 9598182 to discuss your requirements in more detail.

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