

Commercially Available Carbon Offsets

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Climate Change Subcommittee
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Topics

- Carbon Offsetters
 - Who
 - What
- Issues Associated with Offsets
- Offsetters vs Airport Inventories

Carbon Offsetters



Carbon Offsetters

- Who Are They?
 - Credible carbon reduction parties
 - Parties trying to enter market
 - Non-profits and profits
 - John & Tom selling trees
- Where Are They?
 - US, UK, Australia
 - Carriers

Issues Associated with Offsets

- Are you really offsetting your contribution?
- Are the monies used to reduce GHG?
 - Additionality
 - Verification
 - Standardization
- Who “owns” the emission and who “owns” offsets?

Issues Associated with Offsets

- Substantial Differences:
 - Emissions calculations
 - WRI
 - DEFRA
 - Other (airline data, CORINAIR data, etc)
 - Flight distance varies slightly
 - Cost per ton
- Calculations are not transparent

- Home
- Learn
- Buy carbon offsets
- For driving
- For flying**
- For home energy
- For a wedding
- For a dorm room
- How carbon offsets work
- About our projects »
- Gift certificates
- See all carbon offsets
- Buy green products
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Carbon Footprint Calculator

Tell us about your car or truck:

Select a year...

Select a make...

Select a model...

Select miles per year...

[What's my carbon footprint? →](#)

Calculate your carbon footprint: flying

[View previously calculated results](#)

Add up your flights to create a personal emissions report.

Starting from:
 Round trip to:
 Number of trips: 1 [Add Flight to Your Profile ▶](#)

Your flight emissions profile [clear all](#)

Flights are round trip. Emissions data are per passenger.

Chicago, IL ↔ Denver, CO 1 trip

1,784 miles : 803 lbs CO₂

TOTAL
1,784 miles : 803 lbs CO₂ [Balance Now ▶](#)



Map data ©2008 Tele Atlas, Europa Technologies - [Terms of Use](#)

[How does the TerraPass flight calculator work?](#)



Our Programs | Carbon Offsets

CALCULATE YOUR PERSONAL CARBON FOOTPRINT

Please select from the available Offset options below:



Air Travel:	2.4902	
Automobile Travel:	0	
Gifts:	0	Offset Amount
Home:	0	<input checked="" type="radio"/> My Full Impact
Hotels/Lodging:	0	<input type="radio"/> Half My Impact
Total Offset (tons of CO2):	2.4902	

Your total emissions are: 2.4902 tons of CO2

The total cost to offset this amount of CO2 will be:
\$29.88 USD

Offset a different amount: \$0



Carbonfund.org

Reduce what you can, Offset what you can't

Individuals

Businesses

Organizations

Flight Calculator

Departure

Arrival

Include Radiative Forcing

[What's this?](#)

Calculate

Total Miles

8,706

Total Tons CO2

1.57

Total Cost

\$ 8.62

	Round Trip Flight	Miles	Tons CO2	Offset Cost	
1	ORD-DEN	1,782	0.32	\$ 1.76	✖
2	JFK-LHR	6,924	1.25	\$ 6.85	✖

Offset Your
Footprint Now!

Offsetters

For this presentation, quantified emissions for two flights:

- Chicago-Denver (ORD-DEN): 1,778 miles
- London-New York (LHR-JFK): 6,888 miles
- 1 airport's avg flight distance: 965 miles

Entered the above where allowed. When not, a surrogate used (cross country, international flight)
Assumes economy class, if offsetter differentiates.

Comparison of Carbon Calculations Among Offsetters

Offsetter	JFK-LHR		DEN-ORD		965 miles (1 way)	
	Tons	Distance (mi)	Tons	Distance (mi)	Tons	Distance (mi)
Climate Care	2.09	9,206	na	na	0.17	na
Carbonfund.org **	1.25	6,924	0.32	1,782	0.18	965
Be Green	1.22	City Pair	0.34	City Pair	0.19	City Pair
Terrapass	1.22	6,880	0.36	1,784	0.20	965
Clean Air Conservancy	1.24	6,888	0.32	1,772	0.20	965
The Conservation Fund Go Zero	1.46	6,888	0.38	1,772	0.20	965
CarbonNeutral.com	1.20	6,886	0.40	1,798	0.20	965
Carbon Responsible	1.17	6,899	0.31	1,772	0.21	965
E-Bluehorizons	1.51	6,888	0.39	1,772	0.21	965
Travel Matters.org	2.00	6,888	0.51	1,772	0.28	965
National Wildlife Federation	2.19	6,888	0.56	1,772	0.31	965
Sustainable Travel	2.49	City Pair	0.58	City Pair	0.31	City Pair
Carbon Neutrality/ British telecom	2.23	City Pair	na	na	0.31	City Pair
MyClimate	2.53	6,894	0.58	1,800	0.31	965
Native Energy	2.77	6,924	0.74	1,835	0.39	965
LiveNeutral/FlyNeutral	2.45	6,926	0.72	1,772	0.40	965
Atmosfair	3.48	City Pair	0.86	City Pair	0.46	City Pair
ClimateFriendly	3.30	6,886	0.90	1,772	0.50	965
Climate Trust	4.10	6,924	1.05	1,772	0.57	965
Bonneville Env. Foundation	4.27	6,924	1.09	1,772	0.60	965
Conservation International	6.20	range	1.40	range	0.60	range
Environmental Defense	7.80	1 Int'l	2.00	1 crossctry	1.90	1/2 short rdtrp
Carbon.org	4 trees		1 tree		1 tree	
The Green Initiative	Calcualtor didn't work		Calcualtor didn't work		Calcualtor didn't work	

American Institute of Philanthropy

Note rndtrip data halved

Offsetters vs Airport Inventory

■ Airport Inventory

- 80%+ associated with aircraft
- GAV travel can be substantial

Ratios vary based on what is included:

- LTO Ton/Enpl Pax: 0.02 to 0.04 ton
- Total aircraft/Enpl Pax: 0.12-0.17 ton
- Total Ton/Operation: 6 to 15 tons

- Denver Inventory – “per passenger ... average 0.22 mtCO₂e”

Offsetters vs Airport Inventory

Comparison one airport to offsetters:

- One Airport - Average Flight Distance
 - Weighted avg flight distance: 965 nm
 - Airport inventory- aircraft only: 0.28 ton
 - Airport inventory-all sources: 0.34 ton
- Offsetters: ton per passenger
 - Distance: 965 miles
 - Tons: 0.17 ton to 1.9 ton

Offsetters vs Airport Inventory

■ Differences

- **US: 700M Eps @.2ton @\$1 = \$140M annually**
- Calculation process not standardized (offsetters and airport inventories)
 - Radiative Forcing (factor of 1-3)
 - CO₂ versus CO₂ equivalencies (CO₂-eq)
- Offsetters are using fuel burn averages/most airports using actual aircraft fuel dispensed
- Methodologies on web are not defined or not clearly defined

Cost Per Ton Offset

- Cost varied:
 - \$5.50 per ton (Carbonfund.org)
 - \$14.00 per ton (Be Green Now)
 - 1 tree = \$39
 - International currency for int'l offsetters
- Cost can vary if Offsetter allows contribution to differing programs
 - Renewable Energy Credit (wind)
 - Re-forestation

Thanks!

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why carbon offsets

how offsets work

how we are different

our projects

FAQ's

in the news

about global warming

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1 Flight Segment

Round Trip

2 **Mileage**

From:

Enter City, State

To:

Enter City, State

or **Actual Mileage**

Miles:

Add This Segment

Click here to add another trip to your total



TOTAL: 0.735 tons

CO₂ from flying 1,838.25 miles

From Chicago to Denver
1,838.25 miles [\[Remove\]](#)

How do we calculate this?

FlyNeutral: CO₂ Calculator

Please enter the origin and destination city or airport codes only.
(Do not enter state or country)

STARTING FROM:

CHICAGO OHARE INTER

TRIP TO:

DENVER INTERNATIONAL

1 TRIPS 1 PASSENGERS

Roundtrip

SELECTED TRIP

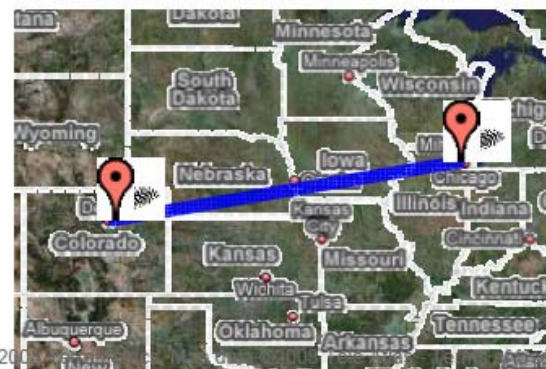
CHICAGO, USA
to DENVER, USA

Number of Trips: 1
Passengers: 1
Roundtrip

Total 1772 miles (2851 km.)

1585 estimated pounds of CO₂
1 Metric Ton or less
\$7.50 for this certificate

MAP



Imagery ©2011

Footprint

Nothing in your cart so far.

Total Contribution

\$0.00

Neutralizing
Climate Change
one flight at a time

FlyNeutral.org

DRIVENEUTRAL CO₂ CALCULATOR

FLYNEUTRAL CO₂ CALCULATOR

HOMENEUTRAL CO₂ CALCULATOR

What Do I Get
With My
Order

Neutralizing
Climate Change
one car at a time

Neutralizing
Climate Change
one flight at a time

FlyNeutral.org



SUSTAINABLE TRAVEL
INTERNATIONAL™

leave the world a better place™

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Carbon Offsets

Air Travel

Flight from: New York, NY [John F. Kennedy International Airport]

Flight to: London, England [Heathrow Airport], United Kingdom

Number of
passengers: 1

One way or
round trip? One way Round trip

Calculate my emissions

Cancel