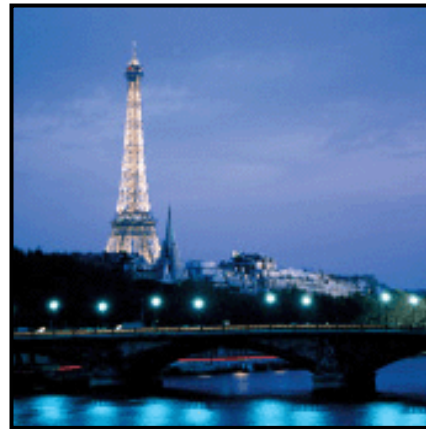
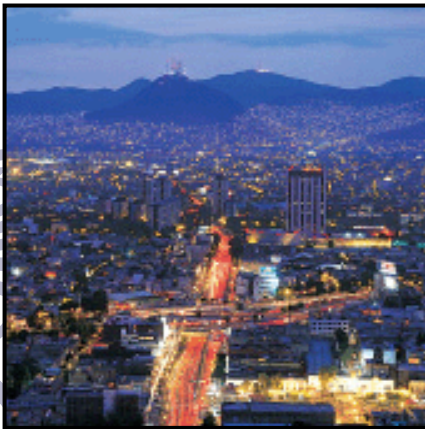
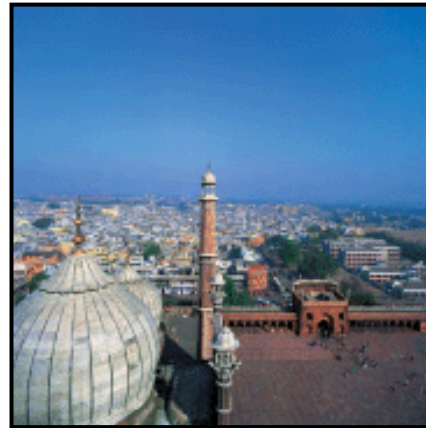


# Continental Airlines

## EXCELLENCE THE WORLD OVER



Continental  
Airlines



eco-skies

COMMITMENT TO THE ENVIRONMENT

**Continental Airlines  
and the Environment**

**Continental Airlines**

**Roy Conn  
December 6, 2007**

# Introduction

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- **Company Overview**
- **Industry Overview**
- **Reducing our Impact on the Environment**
  - *Emissions Reduction Initiatives*
    - Aircraft
    - Ground Service Equipment (GSE)
    - Facilities
    - Congestion Minimization
    - Other program elements
  - *Recycling*
  - *Offsets*



# Continental Airlines – Company Overview

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- **Continental Airlines (CO) is the 4<sup>th</sup> largest US Carrier**
  - Servicing over 135 Domestic locations and over 120 International Destinations
- **Continental is a Hub and Spoke carrier**
  - Hub operations are in Newark, NJ (EWR), Cleveland, OH (CLE) and Houston, TX (IAH)
  - CO also has large maintenance operations at Los Angeles, CA (LAX), Orlando, FL (MCO), Houston - Hobby, TX (HOU)
- **Continental owns and operates Chelsea Food Services as a wholly owned subsidiary**
  - Flight Kitchens in six US locations (EWR, CLE, IAH, DEN, LAX, HNL)
- **Continental Micronesia is a wholly owned subsidiary of Continental Airlines**
- **Regional services are provided to CO by ExpressJet Airlines, Chautauqua, CommutAir, Gulfstream and Cape Air**

# How Does The Industry Impact The Environment?

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## → Aviation's impact on the environment

- Aviation accounts for less than 2% of total global carbon emissions (including passenger, cargo, military, and general aviation)<sup>1</sup>
- By comparison,
  - Electricity generation accounts for 24% of global carbon emissions
  - Deforestation accounts for 18%
  - Road transport accounts for 10%
- **Long-haul flights for which there is no transportation alternative account for 80% of carbon dioxide (CO<sub>2</sub>) emissions from aviation**
- **One minute of extra flying produces 350 pounds of carbon dioxide**
- **12% inefficiency in air traffic management produces 73 million metric tons of unnecessary carbon dioxide per year**
- **In spite of aviation's small impact on global carbon emissions, Continental understands that airlines cannot ignore their impact on the environment and has taken proactive steps to reduce its emissions**

Footnote 1: (Source: Stern Review: The Economics of Climate Change)

# Where is Environment on continental.com?

Continental Airlines - Commitment to the Environment - Microsoft Internet Explorer

File Edit View Favorites Tools Help

Back Forward Stop Refresh Home Search Favorites RSS Print Mail Stop PageRank 520 blocked Check AutoLink AutoFill Settings

Address <http://www.continental.com/web/en-US/content/company/profile/environment.aspx?SID=7339AC942C2349ABA00E9B11654BF49B> Go Links

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Home | Reservations | Travel Information | Deals & Offers | OnePass Frequent Flyer | Products & Services | About Continental

[Home](#) > [About Continental](#) > [Company Profile](#) > **Commitment to the Environment**

## Commitment to the Environment

Continental Airlines is committed to promoting environmental responsibility within its culture.

Global climate change is an important issue, and Continental recognizes that greenhouse gas emissions are everyone's concern. We recognize the importance of directly addressing this issue, even though we do not have all the answers.

The two primary means by which aviation contributes to global emissions are through aircraft operations and airport ground equipment, and Continental is committed to reducing emissions from these sources. In order to minimize the impact on the environment from our fleet and ground service equipment, Continental will continue to invest in the most effective technology and operating procedures feasible.

In addition, we will construct airport facilities in an environmentally responsible manner and will continue to monitor the environmental impact of our business.

### Background Information on Continental and the Environment

#### Our Fleet

Today, Continental is nearly 35 percent more fuel efficient for every mile a passenger flies than in 1997. In order to further reduce emissions and increase fuel efficiency, we will continue to invest in efficient and advanced aircraft technology. We will also continue to apply responsible operating procedures to further reduce the impact of our fleet on the environment. Furthermore, we will work with national and international governments to improve air traffic control systems so that aircraft routings will result in fewer emissions.

#### Our Ground Equipment

Continental is committed to using electric rather than fossil-fuel-powered ground equipment wherever feasible. At our Houston hub, we have been using electric ground equipment since 2002 and we will have reduced our emissions from ground equipment

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# How is Continental Reducing its Aircraft Emissions?

- Continental has achieved a 35% reduction in greenhouse gas emissions and fuel consumption per passenger mile flown, due in large part to an investment of more than U.S. \$12 billion over the past 10 years to acquire more than 270 fuel-efficient aircraft.
  - Creating 1.2 million metric tons less greenhouse gas emissions per year than what we would have created had we not modernized our fleet.
- Continental has committed to invest in additional new, fuel-efficient aircraft and ground equipment worth more than U.S. \$9 billion, with even cleaner technology, through 2013.
- Continental was the first U.S. carrier to order the Boeing 787, which will be the most environmentally friendly aircraft in the world.
  - Continental has the largest order for the Boeing 787 in the Americas, with 25 of these aircraft scheduled for delivery through 2013.



# How is Continental Reducing its Aircraft Emissions?

## Fleet Modification

- By the end of 2007, more than 200 in our fleet will be equipped with winglets, which are wingtip extensions that lower aircraft drag and result in up to a five percent reduction in emissions and noise.
  - Continental was the first airline in the world to retrofit Boeing 757-200 aircraft with winglets, and the first to retrofit 737-500s.
- Continental has installed advanced-technology GE90 3D Aero Blades – a more efficient fan blade – on our Boeing 777 engines, reducing emissions and fuel consumption on our longest range aircraft.



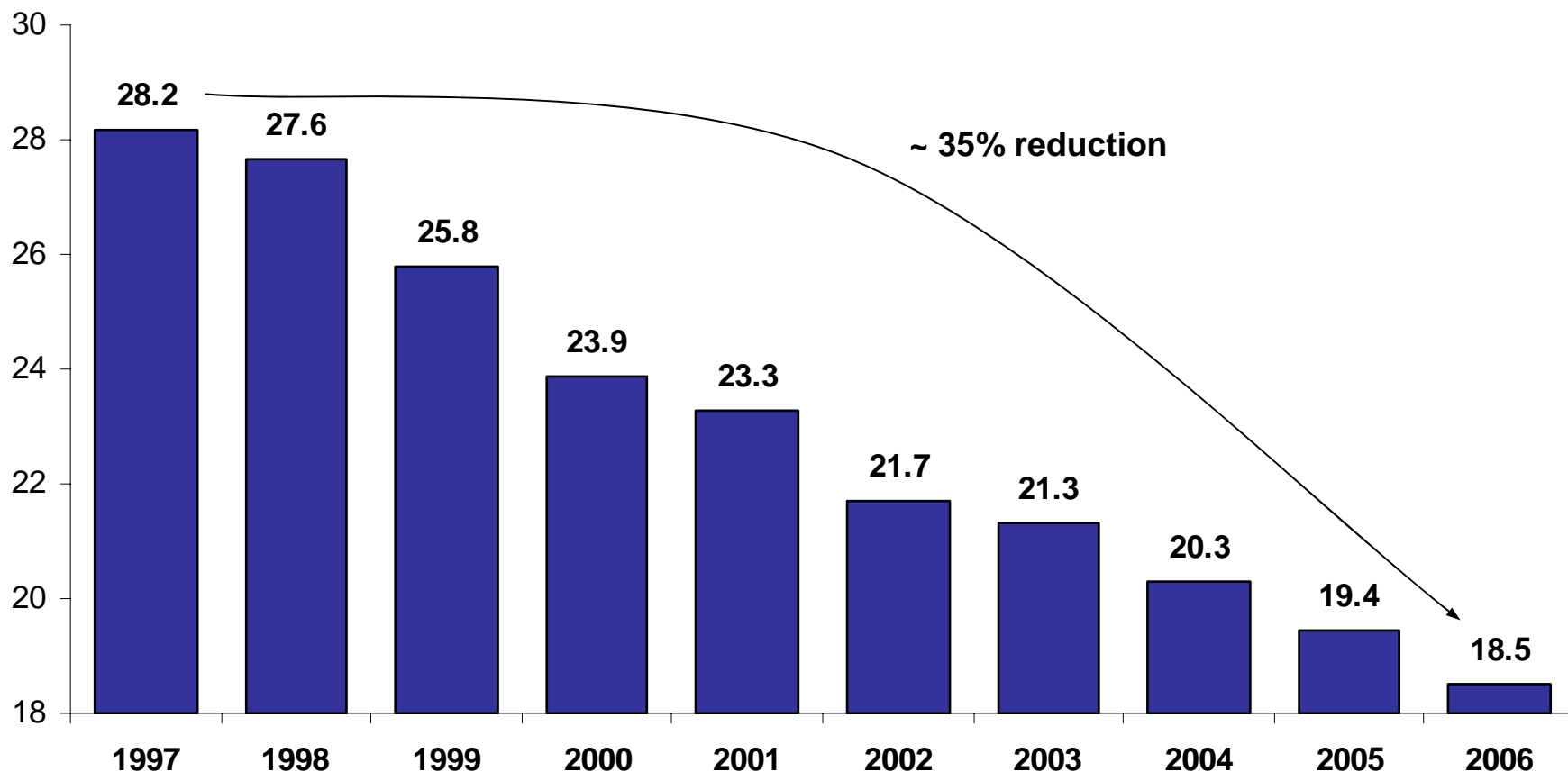
## Operational Efforts

- We only fly the most fuel efficient/cleanest aircraft the farthest as full as possible
- We work with FAA and airports on air traffic control improvements to reduce flight and taxi times
- Our pilots and dispatchers are trained in the most fuel efficient operating procedures
- We enhanced our flight planning system to minimize fuel and will implement a next generation flight planning system to further reduce emissions and fuel use
- We use only one engine during ground taxi whenever possible
- We continue to reduce emissions through aircraft weight reduction initiatives, such as removing unnecessary service equipment and using lighter materials

# Carrier Fuel Efficiency

Continental has reduced its fuel burn per Revenue Passenger Mile by 35% over the last ten years

Gallons per 1,000 Revenue Passenger Miles



# How is Continental Reducing its Ground Emissions?

## Modernization Efforts

- Commitment to invest in additional new, fuel-efficient ground equipment with even cleaner technology
- We operate certified Low Emission Vehicles (LEV) where feasible

## Electrification

- We have reduced by approximately 75% the nitrogen oxide emissions from ground equipment at Houston, Continental's largest hub airport, through switching to electric ground service equipment and other new technology
- Use electric GSE at other locations including Chicago, Denver, Los Angeles, Newark, and other locations

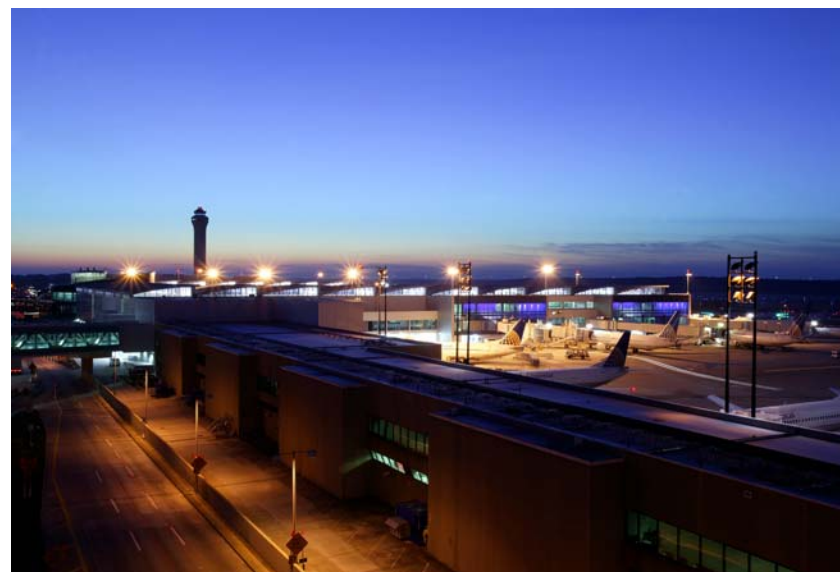
## Alternative Fuels

- We are testing alternative fuel and fuel additives for long-term use in ground service equipment
- We are testing the use of bio-fuels, refined from used cooking oil from the airline's catering division, to propel our ground service equipment



# How is Continental Improving Its Facilities?

- We are committed to building airport facilities according to the U.S. Green Building Council “Leadership in Energy and Environmental Design” (LEED) and U.S. Environmental Protection Agency “Energy Star” standards where most effective
- Terminal E at Houston, Continental’s largest hub airport, is approximately 15% more energy efficient than a traditional terminal due to new technologies and materials used in construction
  - An integrated Building Management System optimizes power consumption, continually monitoring and responding to light, climate and power demand conditions
  - Windows have an energy saving coating that blocks heat buildup and UV rays to reduce cooling requirements
  - Reflective roofing material reduces cooling requirements
- We have energy-efficient lighting systems at many of our maintenance facilities and are currently evaluating the addition of solar panels to some aircraft hangars



# How Continental Works with Communities

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- We worked with local governments to establish New York City's first direct multi-modal air-rail service
- We are a member of Texas' High Speed Rail Transportation initiative, which seeks to connect the major Texas cities with high-speed rail.
- Continental provides environmentally progressive commuter benefits to employees and is designated as one of the Best Workplaces for Commuters, a voluntary partnership program designed to cut traffic congestion and traffic-related air pollution by the U.S. Environmental Protection Agency and U.S. Department of Transportation.



- By the end of 2007, Continental expects to have more than 800 at-home reservations agents, further reducing the number of employees who commute to work.
- Continental works with federal, state, and local governments to improve infrastructure and air traffic management systems at congested airports to reduce delays and reduce emissions.

# How Continental Works with Employees

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- **Working Together - increasing employee awareness of environmental responsibility through communications and training**
  - Continental has a staff of full time environmental professionals who are responsible for working with various departments to minimize the impact of operations to the environment
  - Continental has internal web sites with employee resources to promote environmental awareness
  - Continental increases accountability and awareness by including environmental performance in performance evaluations for key facility and division personnel
  - Continental has an ongoing paperless initiative (from eTickets to electronic records)
  - Continental sponsors employee tree planting events on Arbor Day to promote environmental stewardship in the communities in which we operate



# Does Continental Reduce, Reuse, Recycle?

- Continental reduces, reuses and recycles wastes whenever possible
- Continental's recycling program extends from inside the plane to aircraft maintenance to our offices
- All funds from aluminum recycling are donated to a special fund called "We Care", which is a separate non-profit that provides financial assistance to employees in need.
  - We Care distributes more than \$800,000 per year to about 450 co-workers during emergencies such as a flood, fire or personal illness.
- Continental uses recycled paper for in-flight menus, reports and brochures
- Trash from some Continental locations goes to waste-to-energy facilities that use trash as a fuel to generate renewable energy, which is then used to power homes and businesses
- **In-Flight** - Aluminum cans are voluntarily segregated in-flight and recycled at various flight kitchen locations
- **Catering Operations** - Chelsea Catering locations recycle items like aluminum, cardboard, used cooking oil, and glass
- **Maintenance Facilities** – Aircraft and ground equipment maintenance facilities recycle items like jet fuel, oil, cleaning solvent, and batteries
- **Offices** - Offices typically recycle paper, electronics, and aluminum, but each location varies



# Chelsea Catering 2006 Benefits of Recycling

## 5,100 MATURE TREES

This represents enough saved timber resources to produce 63 million sheets of newspaper

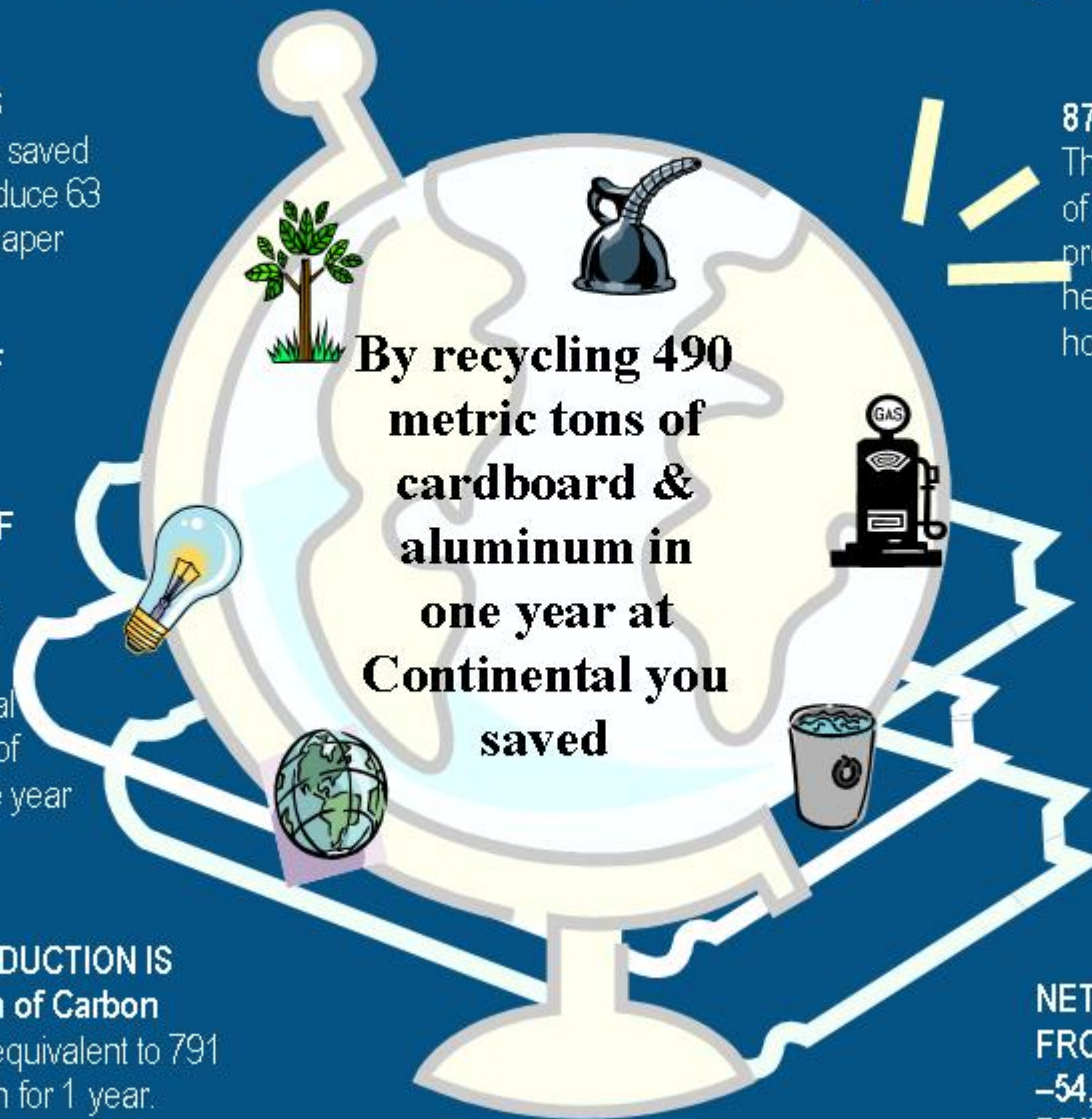
## 4,278,000 KW-HRS OF ELECTRICITY

## 2000 CUBIC YARDS OF LANDFILL AIRSPACE

This represents enough airspace to fulfill the municipal waste disposal needs for a community of 2000 Americans for one year

## GREENHOUSE GAS REDUCTION IS

**1,110 MTCE (Metric Ton of Carbon Equivalent)** This is the equivalent to 791 passenger cars not driven for 1 year.



**By recycling 490 metric tons of cardboard & aluminum in one year at Continental you saved**

## 87,000 GALLONS OF OIL

This represents 2,000 barrels of No 2 fuel oil, which provides enough energy to heat and cool more than 400 homes for one year

## 96,900 GALLONS OF GASOLINE

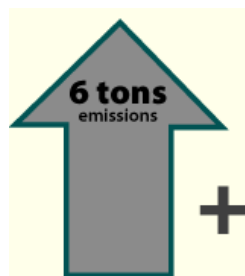
This represents enough gasoline for Americans to drive more than 2,700,000 miles

## 2,100,000 GALLONS OF WATER

**NET ENERGY REDUCTION FROM RECYCLING IS -54,100 MBTU (MILLION BRITISH THERMAL UNITS)**

# Why Offer Voluntary Offsets to Customers?

- Continental would like to offer environmentally conscious customers the ability to do business in person, go on vacation to beautiful places, visit family, and feel good about flying there.
  - Continental is doing what it can to reduce carbon dioxide (CO<sub>2</sub>) emissions by being as fuel efficient as possible.
  - Customers can help reduce carbon dioxide (CO<sub>2</sub>) emissions by offsetting their personal emissions.
- **Offset** is defined as something that counterbalances; a compensating equivalent.



+

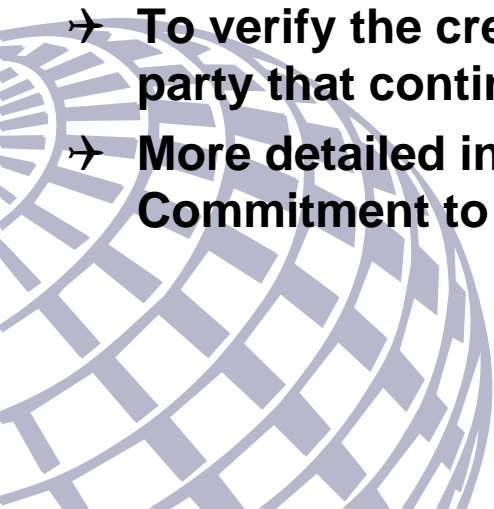


- Continental has partnered with Sustainable Travel International (STI) to provide customers with carbon offset options because they are credible and meet “Gold Standard” criteria supported by World Wildlife Federation and 43 other environment groups or are “Green-e certified” by the Center for Resource Solutions.

# How the Offset Program Works

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- ➔ **After you purchase your ticket on continental.com, you will be taken to the purchase confirmation page where you can click on the link to Sustainable Travel International (STI) to offset the carbon emissions from your flight.**
- ➔ **When you go to “Manage Your Reservations” for a specific flight you will also have the option to offset carbon emissions from your flight.**
- ➔ **The option to offset you carbon emission is currently available through STI’s own carbon calculator, however, Continental does have a customized carbon calculator that reflects Continental’s efficient fleet that emits less carbon emissions than the average existing aircraft.**
- ➔ **In addition to the cutting edge carbon calculator, customers are be able to select the categories of carbon offsets that they would like to support.**
- ➔ **To verify the credibility of carbon offset projects, Continental has a third party that continues to review offset projects and verify the use of funds.**
- ➔ **More detailed information about the program is available on the Commitment to Environment webpage under “About Continental”.**




# Link to Carbon Offset Site from Purchase Confirmation Page

Continental Airlines - Your OnePass Reward is Confirmed - Microsoft Internet Explorer

File Edit View Favorites Tools Help

Back Forward Stop Refresh Home Favorites Links Page Manager Insidecoair TestDirector 7.6 New Dev Staging Beacon - Manage Tables


Address <http://cowebadmindev/web/en-us/apps/booking/flight/confirmReward.aspx?SID=927F8A059828464B94305EF8EA83646A> Go



## Insure Your Travel Plans

Trip Cancellation and Interruption Insurance from Access America helps protect you against expenses should you be required to cancel or interrupt your trip due to medical or other covered reasons affecting yourself or family members. The insurance includes coverage that reimburses pre-paid, unused, non-refundable travel expenses up to \$3,000 per ticketed passenger. Important limitations apply. To find out more visit [www.etravelprotection.com/continental](http://www.etravelprotection.com/continental) or call 800.496.6821.

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## Carbon Offsetting Option

Continental is committed to promoting environmental responsibility within its culture, which includes helping our customers to respond to concerns about climate change with a carbon offsetting option. We've partnered with Sustainable Travel International ("STI"), a non-profit organization dedicated to providing education and services that support environmental conservation, to provide this option to customers. If you want to leave continental.com to learn more about STI or to purchase carbon offsets from STI for this itinerary, go to [offsets.sustainabletravelinternational.org/offset\\_air/flights/ci/2](http://offsets.sustainabletravelinternational.org/offset_air/flights/ci/2).



## Important Travel Information:

- The U.S. government raised the security alert level and implemented extra restrictions to assure the security of air travel. Certain changes in airport procedures and restrictions on items allowed on board aircraft are detailed on the [Travel Alert: Elevated Security](#) page.
- Your Onepass account balance will not change until time of ticketing.
- Mileage purchase is non-refundable.
- Flight miles and segments will NOT be earned for reward travel.
- If your travel plans change, call 1-800-344-1411; outside the U.S., call your local Continental office.

Local intranet

# Contribution And Payment Page

Home > Commitment to the Environment - Sustainable Travel International Contribution

## Commitment to the Environment - Sustainable Travel International Contribution

[FAQs](#)

**Please Indicate Which Program You Would Like to Support:**

- International Reforestation Projects (Suggested contribution: \$64.62)**  
Projects to recreate critical forests and provide incentives to protect critical forest land and avoid the cutting of trees.
- U.S. Renewable Energy Projects (Suggested contribution: \$169.26)**  
Primarily wind farm projects to generate energy in the western U.S. that have a "Green Tag" certification.
- Gold Standard Projects (Suggested contribution: \$175.02)**  
Wind power and other renewable energy projects that have audited and meet criteria established by a consortium of 44 international environmental organizations, including the World Wildlife Federation.
- Combination of Several Offset Projects (Suggested contribution: \$118.37)**  
25% Gold Standard Projects  
25% U.S. Renewable Energy Project  
50% International Reforestation Projects

**Your Contribution:** [Currency Converter](#)


Suggested Contribution: **\$64.62**

Or Specify Different Contribution Amount (See [FAQs](#) for reasons to increase amount.):

For your security, we use standard [SSL encryption](#) to protect the transfer of your payment information.  
Read our [privacy policy](#).

**Payment Options:**

Credit/Debit Card



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Select a Different Card:  
| Ken's personal Amex |

[Edit](#) | [New](#)

Name of Cardholder: Ken Penny  
Card Type: American Express  
Expiration Date: 05/2009  
Card Description: Ken's personal Amex  
Address: 3626 Drummond St.  
City/State/ZIP: Houston, TX 77025-1940  
Phone Number: (713) 324-9267 - United States

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E-mail Address:  
| Karla |

[Edit](#) | [New](#)

Carbon emissions based on your itinerary: 5.3853 Metric Tons of CO2

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# Link To Carbon Calculator from Environment Webpage



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[Home](#) > [About Continental](#) > [Company Profile](#) > [Commitment to the Environment](#) > **Carbon Offset Program**

## Carbon Offset Program

Continental has joined Sustainable Travel International (STI) in our commitment to help protect the environment by offering our customers an opportunity to purchase carbon offsets that are designed to reduce the environmental impact of your trip.

STI is a non-profit organization dedicated to providing education and services that support environmental conservation. By choosing to offset the emissions of your flight, Continental and STI will help you invest your carbon offsets in high-impact projects designed to reduce greenhouse gases, such as reforestation or renewable energy.

- [FAQs](#)
- [Calculate the carbon footprint of your itinerary.](#)
- [Book your travel and select the carbon offset contribution option.](#)



[Business Services](#) | [Cargo](#) | [Careers](#)  
[Contract of Carriage](#) | [Customer First](#) | [Legal Information](#) | [Privacy Policy](#) | [Site Map](#) | [Travel Agents](#)

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# Who is Sustainable Travel International (STI)?

- **STI is a non-profit whose mission is to promote sustainable tourism development by providing programs that help travelers and tourism-related companies protect the environmental, socio-cultural and economic values of the places they visit, and the planet at large.**

*Leave the World a Better Place®*



- **STI and its partners are focused on increasing energy efficiency, reducing waste, and replacing traditional sources of fuel used for energy including coal, oil and natural gas, with clean and renewable sources like wind and solar power.**



# What Kind of Projects Are Used for Offsetting?

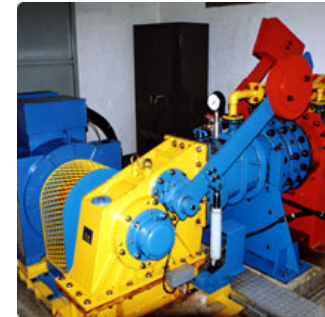
→ Solar energy in Costa Rica



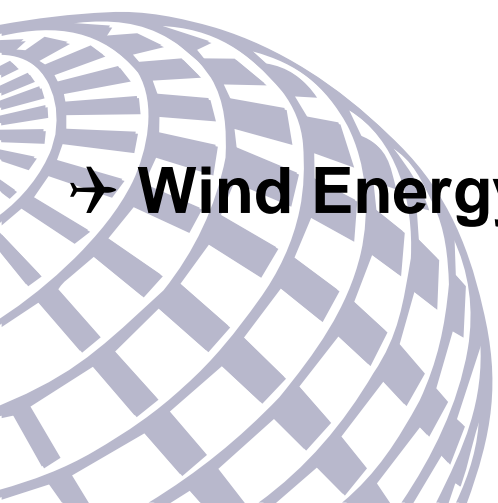
→ Biomass Energy in India, Bihar



→ Hydraulic Power in Indonesia



→ Wind Energy Plants in US





# SUSTAINABLE TRAVEL INTERNATIONAL™

## Certificate

Sustainable Travel International, the United States non-profit organization for climate protection, certifies that

**Suzanne Tedrow**

**9042 McGallion Road Houston TX 77022**

**has invested \$3.3 to offset CO2**

**The compensation of 0.2166 tons of CO2 is achieved in  
verified carbon-offset projects**

Date: August 20, 2007

Customer-ID: 77294

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Brian T. Mullis

President

## Accolades

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-  Best Workplaces for Commuters - U.S. Environmental Protection Agency and U.S. Department of Transportation
- Received NASA Recognition Award as a result of participation in the Aircraft Particle Emissions eXperiment, which studied the exhaust of jet aircraft and the environment
- Named by FORTUNE magazine as one of ten “Green Giants,” corporations whose environmental policies go beyond what is required
- Named one of the top ten companies in the world on FORTUNE magazine’s Global Most Admired list in the Social/Environment category





Continental