



WHAT GOES UP MUST COME DOWN: THE SORRY STATE OF RECYCLING IN THE AIRLINE INDUSTRY




**Green
America
COME TOGETHER**



What Goes Up Must Come Down: The Sorry State of Recycling in the Airline Industry

**A Green America
Responsible Shopper Report**
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TABLE OF CONTENTS

Executive Summary	4
About Airline Waste and In-Flight Recycling	10
Evaluations of Onboard Recycling Programs	12
AirTran	12
American Airlines	13
British Airways	14
Continental Airlines	15
Delta Airlines	16
JetBlue	18
Southwest Airlines	18
United Airlines	20
US Airways	21
Virgin America	22
Virgin Atlantic	23
Overall Ranking of Onboard Recycling Programs	25
Ranking of In-Flight Recycling Programs	26
<i>Variety in Waste Recycled ➔ Future In-Flight Recycling Plans ➔ Education/Encouragement of Employees In Onboard Recycling Programs ➔ Size of In-Flight Recycling Programs ➔ Other In-Flight Sustainability Initiatives</i>	
Conclusions: Steps for Improvement	28
Take Action	31
Resources for Passengers	32
Methodology	33
About the Authors	35
Endnotes	36





EXECUTIVE SUMMARY

If you've flown you've seen it: the flight attendants coming down the aisle with a bag to collect trash. Into the trash bag goes your soda can, your plastic cup, the wrapper from your pretzels and your meal tray (assuming they actually served food on your flight), and the newspaper you were reading. You may have wondered what happens to this trash and where the recyclable items go.

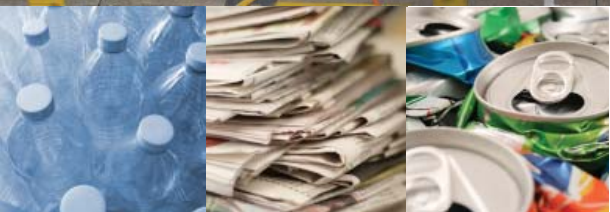
The average airline passenger generates 1.3 pounds of waste per flight. This might not seem like a large amount, but in 2008 there were 678 million airline passenger trips in the United States alone, which generated over 881 million pounds of waste. Approximately 50 percent of this waste is generated on flights. Nearly 75 percent of this waste is recyclable. However only about 20 percent is recycled.

Increased recycling would create a number of environmental and social benefits, including jobs. Just looking at the aluminum cans that are ubiquitous on flights: according to the National Recycling Coalition, each can that's recycled could power a television for three hours. In addition, Americans landfill enough aluminum cans every three months to rebuild our entire commercial airfleet. And, according to Colorado Recycles, recycling creates six times as many jobs as landfilling.

So what initiatives, if any, are airlines taking to decrease the amount of waste generated on their flights and increase their recycling efforts? This report by Green America examines eleven airlines commonly flown by Americans to see what they are doing in the area of in-flight waste reduction.

KEY FINDINGS

Overall, we found that there is room for tremendous improvement in the industry, since nearly 500 million more pounds of waste could be recycled each year, of which 250 million pounds is generated in flight. All of the airlines mentioned in this report acknowledge the importance of recycling waste generated from their flights.



However, the state of recycling waste generated in-flight on airplanes leaves much to be desired.

Key findings include:

- ✈ No airline recycles all of the major recyclables: aluminum cans, glass, plastic, paper.
- ✈ No airline has a comprehensive program for minimizing onboard waste.
- ✈ No airline has a comprehensive program for minimizing or composting food waste.
- ✈ All airlines offer over-packaged snacks with wrappers that aren't always recyclable. None of the airlines are working with manufacturers to think out of the box or bag to reduce this waste.
- ✈ No airline provides good public information about its recycling programs. Their websites and sustainability and annual reports all lack transparency and details about the waste they generate and how they are addressing it.
- ✈ No airline provides a regular report showing metrics on how it is progressing, or not, toward its recycling goals.

However, in this overall dismal picture, there are a few highlights:

- ✈ Delta recycles aluminum cans, plastic bottles, plastic trays, beverage cups, newspapers, and magazines on flights landing at many of the nation's major airports.
- ✈ While American Airlines has limited in-flight recycling initiatives as a company, the American Airlines flight attendants took it on themselves to create an aluminum can recycling program that benefits charity. Their leadership shows all airlines that recycling can be done—and it can create both social and environmental benefits. Kudos to the American Airlines flight attendants!

RANKING OF AIRLINE RECYCLING PROGRAMS FROM BEST TO WORST

1. Delta Airlines (B-)
2. Virgin America (B-)
3. Virgin Atlantic (C)
4. Southwest Airlines (C)
5. Continental Airlines (D)
6. JetBlue (D)
7. American Airlines (D)
8. British Airways (D)
9. Air Tran (D)
10. United Airlines (F)
11. US Airways (F)





- ✈ British Airlines set a bold goal of sending zero waste to landfills in the UK by 2010. Although it has a long way to go, it shows that airlines can lay out a big vision and develop real strategies to reach it.
- ✈ While Southwest's in-flight recycling is limited, Southwest's on-ground recycling includes batteries, electronics, and used oil.
- ✈ Virgin America has eliminated in-flight magazines to prevent waste (reducing waste is even better than recycling), and it has an in-flight green team that works to increase sustainability awareness.



STEPS FOR IMPROVING THE INDUSTRY

It is clear that airlines have much room for improvement in their recycling programs.

The following steps would help move the industry forward:

INDUSTRY ACTIONS

1 Industry support for recycling. The airline industry as a whole, including its trade associations, the Air Transport Association (ATA) and the International Air Transport Association (IATA), should encourage all member airlines to adopt goals for recycling or composting that will lead to overall industry resource recovery of 50 percent of waste by 2012, and zero waste by 2020. This goal can be achieved through greater use of recyclable and compostable materials on flights, and increased coordination between airports and airlines in separating and processing waste. Even in international flights, it is entirely possible to institute recycling programs that do not conflict with government requirements (and the ATA and IATA can play a role in these discussions with the government). The ATA and IATA should also work with airports in order to improve their cooperation in recycling.



2 Each individual airline should set its own goals with an overall target of recycling or composting at least 70 percent of waste by 2015. Each airline should also work to reuse materials on flights where appropriate.

3 Each airline should reduce the materials and packaging brought onto flights, which will reduce waste overall. Each airline should work to ensure that all packaging, cups, plates, and utensils should be recyclable or compostable.

4 As an interim measure, as airlines increase their recycling, they should encourage passengers to remove any recyclable items that the airline doesn't recycle from the plane and place them in airport recycling bins themselves. For example, some airlines currently do not recycle magazines and newspapers. These airlines can encourage passengers to take these items off the plane with them and recycle them in airport recycling bins.

CONSUMER ACTIONS

1 Concerned passengers can help encourage greater recycling by letting airlines know that environmental responsibility is an important factor in their choice of airlines. As a passenger (particularly if you participate in a frequent flyer program with an airline), when you contact airlines to plan your trips, ask what recycling programs are in place and encourage the airlines to create programs if none exist and expand programs already in place. Green America will be collecting data from thousands of airline passengers in 2010 and will publish a follow-up report at the end of 2010, detailing whether there has been any improvement in airline recycling, to persuade companies to clean up their act. A tracking form is can be found on p. 31 and is also available on the Responsible Shopper website (www.responsibleshopper.org).

2 During flights, ask the flight attendants if the waste on that flight is recycled. Attendants know best what items are truly recycled. If the airline does not recycle, or only recycles limited items, politely let the flight attendants know that you would like the airline to recycle more. Then, write to the airline (*please see the "Resources for Passengers" section of this report on p. 32*) and let them know that you would like to see them do more.





3 If the airline does not recycle, take recyclable items (cans, cups, and papers) off the plane and recycle them in the airport. Then, as noted in Step 2 above, write to the airline and let it know that you would like to see it recycle and have a program for composting waste.

4 Airlines do not always live up to their stated recycling policies. Sometimes the recycling on flights falls short of the claims in their environmental reports or on their websites. Help Green America check recycling policies against practices on flights, to hold airlines accountable in enforcing their recycling and to push them to do better. Over the next year, Green America will be collecting information from passengers on thousands of flights from all different airlines in an attempt to track the reality of what is being recycled. If you are flying over the next year, whether domestically or internationally, please ask your flight attendant about what will actually get recycled from the flight. Then, use the form on p. 31 to report this information to our research team. If you are flying on an airline that offers Internet service, you can go to our website and report to us directly from the air (www.responsible shopper.org).

RESEARCH AND METHODOLOGY

While researching airlines to profile the industry on Green America's *Responsible Shopper* program (www.responsible shopper.org), which provides consumers with corporate responsibility information on a wide range of industries, we were surprised at the lack of information about in-flight recycling programs. We found only a handful of resources that did not come from the companies themselves.

The information we found suggested that airlines overall were engaging in minimal recycling efforts, so we decided to conduct research and produce a report examining what airlines were actually doing to recycle and reduce their in-flight waste. We decided to focus on 11 airlines commonly flown by Americans—Air Tran, American Airlines, British Airways, Continental Airlines, Delta Airlines, JetBlue, Southwest Airlines, United Airlines, US Airways, Virgin America, and

Virgin Atlantic. This report is by no means an exhaustive overview of the airline industry, but it does provide a snapshot of a range of carriers within the industry.

Green America gathered information from a range of sources for this report. We reviewed corporate social responsibility (CSR) reports and other publications produced by the airlines. We sent each airline an in-depth survey regarding their recycling practices. We note in the report which airlines responded and which failed to respond.

We also used published reports and articles from observers of the industry for background information, including an article by *E: The Environmental Magazine* called “*Flying Clean: Airline Recycling is a Hit-and-Miss Proposition*,” and a report by the Natural Resources Defense Council (NRDC) titled “*Trash Landings: How Airlines and Airports Can Clean Up Their Recycling Programs*.”





ABOUT AIRLINE WASTE AND IN-FLIGHT RECYCLING

The airline industry generates a massive amount of waste, with much of it coming from flights. An analysis of airport waste shows each departing passenger produces 1.3 pounds of waste annually. In 2008 alone, the 678 million passenger trips¹ on U.S. flights generated 881 million pounds of waste.

Although about 75 percent of the waste is recyclable, less than 20 percent actually is recycled.² About 50 percent of U.S. airport waste can be tracked back to airline waste. Airline waste refers to the waste from flights, ticketing counters, and gate areas. Most airline waste is generated on flights. This waste is generally “food and drink containers, uneaten food, newspapers, magazines, computer printouts, and other paper generated at ticketing counters.”³ According to research published by the Natural Resource Defense Council, airlines annually throw away 9,000 tons of plastic, enough aluminum cans to build 58 Boeing 747 jets, and enough newspaper and magazines to cover a football field 230 meters deep.⁴ Though a large percentage of this waste is recyclable, many airlines do not have a comprehensive recycling program.

To understand in-flight waste and recycling programs of different airlines, several factors should be considered. The amount of waste an airline produces and its environmental policies are reflective of the size of the airlines and the services offered. Many low-cost carriers do not offer meals on domestic flights, generating less waste than other flights.

United States Department of Agriculture (USDA) regulations of international flights also impact recycling—although some airlines use them as excuses to avoid recycling on these flights. For example, the “USDA Manual for Agricultural Clearance states that aluminum cans, glass, and plastic container can be recycled as long as they never hold milk or other dairy products”⁵ when they come from another country. In addition, the recyclables must be collected separately and



stored away from dairy containers during the flight in order to be recycled. Finally, sorting of recyclable waste from international flights must be done on the aircraft and cannot be separated for recycling outside of the aircraft.⁶ Many airlines interpret these regulations as a ban on recycling any international waste⁷ and do not have established programs for recycling on international flights. While regulations must be followed, they should not justify a lack of in-flight recycling programs on international flights.

Airlines' onboard recycling programs are often dependent on the airports they service—and the variations between airports provide another surmountable excuse for airlines to avoid recycling their waste. Airports work on either a centralized waste system where the airport is responsible for managing the in-flight waste, or a decentralized waste system where the airline is responsible for handling its own waste. If the airport has a centralized waste system, then recycling is usually available to airlines. But, “unless the airport provides sorting facilities on the ground, airplane waste must be sorted in-flight. However, because airplane waste is not always sorted in-flight, even airports providing a recycling infrastructure to airlines sometimes have a difficulty capturing the recyclables.”⁸ The reasons airlines cite for not sorting in-flight waste are lack of time and space. Airlines also argue that flight attendants are often unaware of the recycling procedures for the airports they service, so waste is usually not separated.⁹

Airlines operating out of airports with a decentralized system often feel that cumulative waste generated on flights to non-hub airports is not enough to warrant a recycling program. Also, airlines operating out of airports with a decentralized system note that time and space make recycling difficult.¹⁰

Airlines can overcome any of the challenges to creating in-flight recycling programs, including employee education and involvement, knowledge of the type of waste produced, and a time- and space-efficient system. While airlines might face challenges in creating effective recycling programs, evidence shows that they can implement working systems. Several airlines are significantly ahead of their competitors in taking these steps.





EVALUATIONS OF ON BOARD RECYCLING PROGRAMS

AIRTRAN

AirTran is not forthcoming about its recycling efforts. The airline does not provide information regarding environmental issues (including recycling) on its website and failed to respond to our survey. However, according to a July 10, 2009 article in the *Atlanta Business Chronicle*, AirTran is undertaking a number of environmental measures, including testing a “green gate” at Hartsfield-Jackson airport in Atlanta, which uses all-electric ground support vehicles, including the airplane push-back vehicle, baggage loaders, and baggage tractors¹¹. Airtran is reported to have a comprehensive in-flight recycling program and recycles waste at Hartsfield-Jackson airport, and also at its corporate campus in South Atlanta.

Additionally, AirTran will begin carrying Icelandic Glacial Natural Spring Water. Icelandic uses only geothermal and hydroelectric power to run its production, making it a better bottled water than most. However, while this is a step forward, all bottled water is wasteful compared to filtered tap water¹², which could be made available by AirTran and all other airlines.



AIRTRAN

- C** | Diversity in In-Flight Waste Recycled
- F** | Future In-Flight Recycling Plans
- F** | Education/Encouragement of Employees in Onboard Recycling Programs
- C** | Size of In-flight Recycling Program
- F** | Other In-flight Sustainability Initiatives

OVERALL GRADE: D
OVERALL RANKING: 9th

AMERICAN AIRLINES

American Airlines has limited in-flight recycling initiatives. In its *Environmental Responsibility Report*, American Airlines states that flight attendants created a program to recycle aluminum cans. “Through the Wings Foundation, a 501(c)3 charity, American flight attendants collect and recycle empty aluminum cans from in-flight beverages.”¹³ Although the can program is not implemented on all flights, the report notes the Wings Foundation is working to expand its recycling program. To work around airports without recycling programs, flight attendants sometimes collect cans and send them on to an airport that does recycle.¹⁴ American Airlines flight attendants saw an area where the airline was lagging and decided to do something about it. They are proving that even if company policy is lacking, a group of committed individuals can work to improve matters, and Green America recognizes American Airlines flight attendants for taking this initiative. Their work also proves that with training and commitment, flight attendants can provide excellent recycling program implementation.

In its *Environmental Responsibility Report*, American Airlines offers explanations for its lack of recycling. The airline explains that recycling plastic and newspaper is not practical—though several other major airlines have found effective ways to recycle this type of onboard waste. The report also states, “Federal regulations prohibits the recycling of any solid waste generated on international flights. All such waste is required to be incinerated.”¹⁵ As mentioned earlier, federal code only prohibits certain recycling practices on international flights and other airlines have developed systems to recycle waste from international flights. According to its *Environmental Responsibility Report*, American Airlines “is keeping an eye on the markets, technology, partnerships, and infrastructures that would make new recycling efforts feasible.”¹⁶ Although the American Airlines flight attendants created a comprehensive aluminum can

AMERICAN AIRLINES

- D** | Diversity in In-Flight Waste Recycled
- D** | Future In-Flight Recycling Plans
- B** | Education/Encouragement of Employees in Onboard Recycling Programs
- D** | Size of In-flight Recycling Program
- F** | Other In-flight Sustainability Initiatives

OVERALL GRADE: D

OVERALL RANKING: 7th





recycling program, American Airlines has not taken any visible steps to institutionalize and take responsibility for this volunteer effort or to expand upon this in-flight recycling effort.

BRITISH AIRWAYS

British Airways is one of the most frequently flown airlines from the US to Europe. It is a good case study on how airlines can handle recycling on international flights. British Airways has made a commitment to reduce the amount of waste it directs to landfills. British Airways has a successful newspaper recycling program on short-haul flights landing in London Heathrow. The airline is now extending this newspaper recycling program to other locations throughout Europe.

British Airways has set the ambitious goal to send no waste to landfills in the United Kingdom by 2010. The airline recycles 30 percent of its waste at its main hubs in Heathrow and London Gatwick.¹⁷

According to its *2007/08 Corporate Responsibility Report*, British Airways reduced the amount of waste from Heathrow and London Gatwick directed to landfills by 100 percent.¹⁸

However, landfilling zero waste is not the same as being a “zero-waste” company. To reach its 2010 goals, British Airways will attempt to recycle 50 percent of all waste that accumulates at Heathrow and Gatwick Airport. It will incinerate the percentage of the waste that cannot be recycled, and the heat will be used to generate electricity, a process known as waste-to-energy which

BRITISH AIRWAYS

- D** | Diversity in In-Flight Waste Recycled
- B** | Future In-Flight Recycling Plans
- F** | Education/Encouragement of Employees in Onboard Recycling Programs
- D** | Size of In-flight Recycling Program
- F** | Other In-flight Sustainability Initiatives

OVERALL GRADE: D

OVERALL RANKING: 8th

is a controversial practice among environmentalists.¹⁹ While an alternative to landfills, burning waste in industrial kilns often releases harmful air emissions that include toxic chemicals, acid gases, and heavy metals. Considering a large percentage of airline waste is in-flight waste, it seems that in the UK, British Airways is taking steps to divert in-flight waste from landfills.

However ambitious its goals, British Airways provides no public information on how it is meeting these goals outside of London Gatwick and Heathrow, and it failed to respond to our survey. Although British Airways has some plans for a greener future, according to the information available, it seems its in-flight recycling programs are in the beginning stages and are limited in size and scope.

CONTINENTAL AIRLINES

Continental Airlines published a *Global Citizenship Report* in 2009 focusing on social and environmental responsibility. The report states, “Continental has expanded its onboard recycling program to include not just aluminum cans but also plastics, newspaper, and magazines. Continental’s program is designed to maximize recycling opportunities at the various airports it operates.” While Continental does appear to have some sort of recycling program, it does not detail the extent of the program, does not provide specific goals or metrics on how it is meeting its goals overall, and failed to answer our survey.

Chelsea Food Service, a catering company used by Continental Airlines, recycles aluminum, cardboard, plastic wrap, and other plastics.²⁰ Additionally, according to its *2008 Global Citizenship Report*, Continental’s In-Flight and Catering divisions recycled more than 640,000 pounds of aluminum and plastic and more than 1,100 tons of cardboard, however it is unclear whether

CONTINENTAL AIRLINES

- B** | Diversity in In-Flight Waste Recycled
- D** | Future In-Flight Recycling Plans
- F** | Education/Encouragement of Employees in Onboard Recycling Programs
- D** | Size of In-flight Recycling Program
- D** | Other In-flight Sustainability Initiatives

OVERALL GRADE: D

OVERALL RANKING: 5th





this refers to waste generated in-flight or rather to the In-Flight and Catering divisions' ground operations.”²¹

DELTA AIRLINES

Delta Airlines launched a new in-flight recycling program in 2007, which recycles aluminum cans, plastic bottles, plastic trays, beverage cups, newspapers, and magazines. Initially, the program was implemented only on flights landing in Atlanta, Georgia, but with the goal of having this program running industry-wide by the end of 2008.²² While Delta did not reach that goal, as of Spring 2009, its recycling program was implemented on all Delta flights landing in Albuquerque, Atlanta, Baltimore, Chicago, Cincinnati, Cleveland, Denver, South Florida, New York (both La Guardia and JFK), Fort Lauderdale, Los Angeles, Portland, Raleigh-Durham, Sacramento, Salt Lake City, San Francisco, Seattle-Tacoma, Tampa, Washington, DC (Reagan-National), and Boston.²³

According to the environmental report, flights that terminated in Atlanta resulted in recycling 112.6 tons of aluminum cans, 19.64 ton of plastics, and 16.02 tons of newspaper.²⁴ “Overall, Delta Flight Attendants, Cabin Service teams, and catering crews collected a total of 1,145,215 pounds (573 tons) of aluminum cans, plastics, newspapers, and magazines in 2008.”²⁵ In late 2008, Delta merged with Northwest Airlines, expanding its onboard recycling program to cover Northwest flights landing in: Anchorage, Detroit, Indianapolis, Los Vegas, Los

DELTA AIRLINES

- B** | Diversity in In-Flight Waste Recycled
- C** | Future In-Flight Recycling Plans
- B** | Education/Encouragement of Employees in Onboard Recycling Programs
- B** | Size of In-flight Recycling Program
- C** | Other In-flight Sustainability Initiatives

OVERALL GRADE: B-

OVERALL RANKING: 1st



Angeles, Memphis, Minneapolis-St. Paul, Seattle-Tacoma, and San Francisco. The combined in-flight recycling program collected and diverted more than 1.2 million pounds (632 tons) of recyclable materials from landfills in 29 US cities.²⁶ Delta travels to more than 375 destinations worldwide so the 29 cities that it recycles on represents only about eight percent of all the destinations to which Delta flies. Although Delta's recycling program is limited to certain airports, Delta does have plans to extend the program.

Delta does not currently recycle on international flights. In regard to recycling international waste, an employee explained on the Delta Environment Blog, "The management and disposal of trash from international flights (arriving back into the United States) is strictly regulated by the United States Department of Agriculture (USDA). While Delta does envision recycling on arriving international flights in the future, the collection program we design must maintain compliance with regulations first and foremost."²⁷ As discussed earlier in the report, it is entirely possible to implement a recycling program right now that complies with international regulations.

Along with working to expand its in-flight recycling program, Delta is taking other steps to reduce waste and encourage recycling. Delta created an education program about in-flight recycling for employees. The program includes, "distribution of information through senior management endorsement, shift briefings, voicemails, storyboards, and Flight Attendant lounge visits."²⁸

Additionally, Delta shows a video to passengers about recycling, hoping that it will spur participation in onboard recycling. Also, Delta works to lower in-flight resource consumption and waste.²⁹ The menus used on flights are printed on recycled paper with soy ink, and fluorescent light bulbs used are recycled.³⁰ Delta touts that for the majority of the year, first-class meals are served on washable dishware; however, this is standard on most first-class flights and should be expanded to include flights of all classes.³¹ The carpet in the airplanes is also recycled. Employees working on Delta's recycling program recognize there are several more steps in creating a green in-flight waste management system, and it plans to expand the onboard recycling programs, using cups and dishware made from disposable corn products, and composting organic waste.³²

While Delta's recycling program is furthest along among all the airlines studied in this report, there are still many steps that need to be taken before the company can earn an A, such as





creating a recycling program for its international flights and having concrete goals for expansion of its recycling program.

JETBLUE

According to the “green” section of its website (www.jetblue.com/green/), JetBlue is undertaking a number of environmental initiatives. With regard to recycling, the budget airline states that it recycles only at JFK in New York City, its home airport. Each month, it recycles approximately 1,500 gallons of fuel and oil and about 600 pounds of steel. It is working with its concession providers to recycle or reuse cooking oils, and it uses state-of-the-art infrared de-icing technology, which helps minimize the environmental impact. It has also reduced paper waste by reducing the use of paper airline tickets and using smaller-than-average paper boarding passes. Additionally, it has no in-flight magazine and no disposable headsets, though these may be cost-saving measures more than efforts to reduce its environmental impact.

JETBLUE

- D** | Diversity in In-Flight Waste Recycled
- D** | Future In-Flight Recycling Plans
- F** | Education/Encouragement of Employees in Onboard Recycling Programs
- D** | Size of In-flight Recycling Program
- C** | Other In-flight Sustainability Initiatives

OVERALL GRADE: D

OVERALL RANKING: 6th

SOUTHWEST AIRLINES

Southwest Airlines presents itself as a company focused on environmental responsibility. According to a web feature on the company’s website entitled “Southwest Cares: Doing the Right Thing: Our Planet,” in 2008, Southwest

recycled 217.8 metric tons of cardboard, paper, plastic, and aluminum (although it is not clear how much of this is onboard waste). The company also recycled lamps, batteries, electronics, used oil, filters, and liquid and solid paint waste, for total recycling of 455 metric tons. In its 2007 Environment Policy Report, which contained limited information on recycling, Southwest Airlines acknowledges that it is committed to recycling onboard waste and notes that in 2007, it recycled 2.4 million aluminum cans.³³ The report also mentions that Southwest is committed to using suppliers that package products in recyclable containers. Water served on flights is canned because aluminum is easier to recycle.³⁴ Although the report indicates that Southwest Airlines took steps to recycle waste produced on flights, there is no mention on how effective or widespread its program is.

While it is unclear what materials Southwest currently recycles, information acquired indicates Southwest is taking steps to make a comprehensive in-flight recycling program. In 2008, a Southwest-sponsored blog posted a radio program discussing new recycling initiatives within Southwest. Mentioned in the interview was the fact that Southwest is working to create an industry-wide in-flight recycling program.³⁵ Also, Southwest helped create an effective onboard recycling program by encouraging flight attendants to participate by allocating profits from recycling to fund employee barbecues and other events.³⁶

Along with recycling, Southwest is limiting resource consumption related to flights. Southwest serves coffee on flights in cups made of post-consumer recycled paper.³⁷ Southwest recently introduced an in-flight snack program that reduces waste by efficient packaging made from recycled material.³⁸ While Southwest could provide greater clarity about its recycling program, with public disclosure of its goals and metrics and reporting on its progress, it is evident that the airline does have an interest in managing the amount of waste from flights being sent to landfills.

SOUTHWEST AIRLINES

- D** | Diversity in In-Flight Waste Recycled
- C** | Future In-Flight Recycling Plans
- C** | Education/Encouragement of Employees in Onboard Recycling Programs
- D** | Size of In-flight Recycling Program
- C** | Other In-flight Sustainability Initiatives

OVERALL GRADE: C

OVERALL RANKING: 4th





UNITED AIRLINES

United Airlines is beginning to create a recycling program but currently the program is limited to a few specific airports. United Airlines does not have an environmental report available on its website, but provides some information about its recycling efforts. United Airlines only collects and recycles plastic and aluminum beverage containers on flights that land in Hawaii, but it plans to extend its recycling program “to arrivals at other locations,” such as Los Angeles, San Francisco, and Seattle-Tacoma airports.”³⁹ The website notes that expanding the program takes time because the airline has to create a unique system for each airport. United Airlines may be planning to expand its recycling program, but currently, it has one of the most limited programs in the industry.

UNITED AIRLINES

- C** | Diversity in In-Flight Waste Recycled
- D** | Future In-Flight Recycling Plans
- F** | Education/Encouragement of Employees in Onboard Recycling Programs
- F** | Size of In-flight Recycling Program
- F** | Other In-flight Sustainability Initiatives

OVERALL GRADE: F

OVERALL RANKING: 10th

US AIRWAYS

US Airways is behind all but United in terms of in-flight recycling programs. The US Airways 2008 *Environmental Responsibility Report* states, “recycling, waste minimization, and pollution prevention are key factors in US Airways’ efforts to protect our natural resources.” However, the 24-page report contains no mention of any in-flight waste recycling initiatives. When contacted to expand on its in-flight recycling program, US Airways responded by stating all available information is in the *Environmental Responsibility Report* and declined to participate in the survey that we sent to all the airlines mentioned in this report.⁴⁰

In 2002, an article in *E: Environmental Magazine* noted that US Airways had a can recycling program but it was terminated. According to US Airways spokesperson, David Castleveter, “We found it was logistically difficult, if not impossible, to arrange for those soda cans to be picked up.”⁴¹ Castleveter also noted the recycling program failed because educating flight attendants whose flight paths change often, was difficult. From the lack of current information on its recycling programs, and its refusal to share any information, it seems likely that US Airways has not re-established an in-flight recycling program.

US AIRWAYS

- F** | Diversity in In-Flight Waste Recycled
- F** | Future In-Flight Recycling Plans
- F** | Education/Encouragement of Employees in Onboard Recycling Programs
- F** | Size of In-flight Recycling Program
- F** | Other In-flight Sustainability Initiatives

OVERALL GRADE: F

OVERALL RANKING: 11th





VIRGIN AMERICA

Virgin America states that it wants to expand its recycling program to all airports in the Virgin Atlantic system, but provides no firm timeline for doing so. According to a presentation given by Virgin America Vice President Dave Phlieger, Virgin America’s in-flight sustainability initiatives include recycling aluminum cans, reducing food packaging, and using food packaging that is 90 percent biodegradable.

In its response to Green America’s survey, Virgin America provided additional information about its onboard recycling initiatives: Virgin America is working to create an in-flight recycling program that will include aluminum cans, plastics, newspapers, and magazines.

Virgin America currently has an in-flight recycling program implemented on flights landing in San Francisco and Seattle airports—flights that make up approximately 47 percent of Virgin America’s flights.⁴² The airline hopes to expand the recycling program to all other airports in the Virgin America system. In the survey, Virgin America notes that individual airports and catering programs provide challenges that must be addressed in creating onboard recycling programs.

Along with its in-flight recycling program, Virgin America has taken other steps to make flights and business operations more sustainable. For instance, it offers local, organic, and sustainable foods on flights. Second, Virgin America flies Airbus A320s, which have 25 percent fewer CO₂ emissions than other planes.⁴³ Also, the airline gives passengers the opportunity to offset their flight footprint. Annually, Virgin America offsets the headquarters carbon footprint through

VIRGIN AMERICA

- B** | Diversity in In-Flight Waste Recycled
- D** | Future In-Flight Recycling Plans
- D** | Education/Encouragement of Employees in Onboard Recycling Programs
- B** | Size of In-flight Recycling Program
- B** | Other In-flight Sustainability Initiatives

OVERALL GRADE: B-

OVERALL RANKING: 2nd



Carbonfund.org.⁴⁴ Finally, Virgin Atlantic uses 100-percent recycled paper in its offices.⁴⁵

Virgin America has taken other steps to limit the environmental impact of its flights. For instance, Virgin America does not print an in-flight magazine. Also, Virgin America staff at individual airports have found alternative ways to deal with waste. Flights in Boston have a system whereby arriving guests pass their magazines and newspapers to departing guests.⁴⁶ Virgin America has also has systems in place to create highly effective in-flight sustainability practices, but it's not yet taking full advantage of them. According to Virgin America's Sustainability Principles, Virgin America is committed to "motivate, empower, and enrich our employee base through education, training and leadership development that assists the company in achieving its sustainability goals."⁴⁷ Also, Virgin America has an in-flight green team that works to increase sustainability awareness.⁴⁸ Virgin America does have an effective onboard recycling program, which it is working to expand.

Overall, in terms of recycling, Virgin America is taking significant steps to be comprehensive and systematic. We look forward to Virgin America publishing a report on its goals, with metrics on its progress. Could Virgin America beat out Delta for the #1 spot in next year's Green America report on airline recycling?

VIRGIN ATLANTIC

Compared with other airlines, Virgin Atlantic is committed to reducing onboard waste and recycling. Virgin Atlantic recycles aluminum cans from domestic flights, and whenever possible, it recycles cans at overseas airports.⁴⁹ Flight attendants collect plastic glasses for the Save A Cup Foundation. "Cups are reduced to flakes, suitable for washing in automated equipment, then dried and sold for further applications or further processed into pellets for a wide range of uses such as coat hangers and video cassettes."⁵⁰ No information could be found about Virgin Atlantic recycling paper products from flights. But, in its *Environmental Policy Report*, Virgin Atlantic pledges by 2012 to recycle or reuse 50 percent of the waste generated at the end of a flight.⁵¹ Virgin Atlantic is developing a comprehensive recycling program but believes it is limited by the large amount of international flights it conducts.

Virgin Atlantic conducts in-flight recycling programs and limits resource consumption and the amount of waste produced on flights. With the introduction of duty free bags in 1988, Virgin





Atlantic was the first company to use Byoplastic, a biodegradable plastic. The bags it uses now contain some recycled plastic; however, the exact amount is unspecified.⁵² It puts in-flight magazines in plastic covers so that they can last longer, and it donates out-of-date magazines in good condition to hospitals and other reception areas.⁵³

Virgin Atlantic is also working to reduce the amount of waste that comes from its amenity kits. It collects post-flight economy-class kits, and “unused items are made into new kits with any required new components (e.g. pens, notepads) while used items can be laundered and given to charity (e.g. eyeshades, socks).”⁵⁴ It collects upper-class amenity kits after a flight, and donates or gives away unused items in Virgin Atlantic’s clubhouses. In addition, “Upper Class headsets have new ear sponges fitted and are resealed in poly bags.”⁵⁵ Old upper-class dining linens are donated to prisons. Virgin Atlantic also encourages its product suppliers to reduce waste. For instance, “the suppliers of the champagne have reduced their cardboard packaging with a view to replacing this with reusable packaging.”⁵⁶

While Virgin Atlantic could extend its in-flight recycling program to include paper products, the airline has taken several steps to minimize the amount of in-flight waste headed to the landfill. However, Virgin Atlantic still lags behind Delta and Virgin America in the size and scope of its recycling program, and it needs to provide education and encouragement to its employees around the issue of recycling waste generated in-flight.

VIRGIN ATLANTIC

- C** | Diversity in In-Flight Waste Recycled
- B** | Future In-Flight Recycling Plans
- F** | Education/Encouragement of Employees in Onboard Recycling Programs
- C** | Size of In-flight Recycling Program
- B** | Other In-flight Sustainability Initiatives

OVERALL GRADE: C

OVERALL RANKING: 3rd

OVERALL RANKING OF ONBOARD RECYCLING PROGRAMS

Overall, we found that there is room for tremendous improvement in the industry. Nearly 500 million more tons of waste could be recycled each year (including 250 million tons of in-flight waste), and the state of recycling waste generated in-flight on airplanes leaves much to be desired.

Key findings include:

- ✈ No airline recycles all of the major recyclables: aluminum cans, glass, plastic, paper.
- ✈ No airline has a comprehensive program for minimizing onboard waste.
- ✈ No airline has a comprehensive program for minimizing or composting food waste.
- ✈ All airlines offer over-packaged snacks with wrappers that aren't always recyclable. They aren't working with manufacturers to think out of the box or bag to reduce this waste.
- ✈ No airline provides good public information about their recycling programs. Their websites and sustainability and annual reports all lack transparency and details about the waste they generate and how they are addressing it.
- ✈ No airline provides its goals on recycling with regular reports showing metrics on how it is progressing, or not, toward those goals.

RANKING OF AIRLINE RECYCLING PROGRAMS FROM BEST TO WORST

- 1: Delta Airlines (B-)
- 2: Virgin America (B-)
- 3: Virgin Atlantic (C)
- 4: Southwest Airlines (C)
- 5: Continental Airlines (D)
- 6: JetBlue (D)
- 7: American Airlines (D)
- 8: British Airways (D)
- 9: Air Tran (D)
- 10: United Airlines (F)
- 11: US Airways (F)





RANKING OF IN-FLIGHT RECYCLING PROGRAMS

To illustrate which airlines have the strongest onboard recycling programs, Green America devised a ranking system. The airlines' recycling programs were judged in six categories: *diversity in in-flight waste recycled, future in-flight recycling plans, education and encouragement of employees in onboard recycling programs, size of the in-flight recycling program, other in-flight sustainability initiatives, and best program overall* (see the overall ranking chart on p. 25). Rankings proceed from top to bottom, with companies at the top having better recycling programs than the ones at the bottom. Companies that failed to disclose their practices in a category received a lower letter grade.

Letter grades go in this order: A (best), B, C, D, F (worst) with plus (+) and minus (-).

The color coding is another indicator of a company's recycling program, with Green being the best, followed by Yellow, Orange, and Red (Worst). No company merited a green ranking.

DIVERSITY IN IN-FLIGHT WASTE RECYCLED

Which airlines recycle the widest variety of items? Some airlines recycle just cans or just newspapers. Others recycle a wide array of items.

- 1 Delta Airlines (B)
Virgin America (B)
Continental Airlines (B)
- 2 Virgin Atlantic (C)
United Airlines (C)
AirTran (C)
- 3 Southwest Airlines (D)
British Airways (D)
JetBlue (D)
American Airlines (D)
- 4 US Airways (F)

FUTURE IN-FLIGHT RECYCLING PLANS

What companies are planning to expand their recycling plans in the future? Which ones have the most ambitious goals?

- 1 Virgin Atlantic (B)
- 2 British Airways (C)
- 3 Delta Airlines (C)
Southwest Airlines (C)
- 4 JetBlue (D)
Virgin America (D)
American Airlines (D)
United Airlines (D)
Continental Airlines (D)
- 5 US Airways (F)
AirTran (F)



EDUCATION/ ENCOURAGEMENT OF EMPLOYEES IN ONBOARD RECYCLING PROGRAMS

How well do the airlines communicate the importance of recycling to their employees? How engaged are employees in the recycling programs? What sort of benefits or incentives are employees offered for participating in the recycling programs?

- 1 Delta Airlines (B)
- 2 Southwest Airlines (C)
- 3 American Airlines (D)
- 4 Virgin America (D)
- 5 British Airways (F)
United Airlines (F)
US Airways (F)
Virgin Atlantic (F)
Continental Airlines (F)
JetBlue (F)
AirTran (F)

SIZE OF IN-FLIGHT RECYCLING PROGRAM

How much waste do the airlines recycle? Virgin America tops this category with US Airways bringing up the rear.

- 1 Virgin America (B)
- 2 Delta Airlines (B)
- 3 Virgin Atlantic (C)
AirTran (C)
- 4 Southwest Airlines (D)
Continental Airlines (D)
American Airlines (D)
British Airways (D)
JetBlue (D)
- 5 United Airlines (F)
- 6 US Airways (F)

OTHER IN-FLIGHT SUSTAINABILITY INITIATIVES

What initiatives aside from recycling, such as reuse and composting, are airlines undertaking? How effective are they?

- 1 Virgin Atlantic (B)
Virgin America (B)
- 2 JetBlue (C)
Southwest Airlines (C)
- 3 Delta Airlines (D)
- 4 Continental Airlines (D)
- 5 American Airlines (F)
United Airlines (F)
British Airways (F)
US Airways (F)
AirTran (F)



CONCLUSIONS: STEPS FOR IMPROVEMENT

Nearly 500 million more tons of waste could be recycled each year (including 250 million tons of in-flight waste) and all of the airlines mentioned in this report acknowledge the importance of recycling waste generated from their flights. Overall, there is room for tremendous improvement in the airline industry when it comes to their recycling programs.

The following steps would help move the industry forward:

INDUSTRY ACTIONS

1 Industry support for recycling. The airline industry as a whole, including its trade associations, the Air Transport Association (ATA) and the International Air Transport Association (IATA), should encourage all member airlines to adopt goals for recycling or composting that will lead to overall industry resource recovery of 50 percent of waste by 2012, and zero waste by 2020. This goal can be achieved through greater use of recyclable and compostable materials on flights, and increased coordination between airports and airlines in separating and processing waste. Even in international flights, it is entirely possible to institute recycling programs that do not conflict with government requirements (and the ATA and IATA can play a role in these discussions with the government). The ATA and IATA should also work with airports in order to improve their cooperation in recycling.

2 Each individual airline should set its own goals, with an overall target of recycling or composting at least 70 percent of waste by 2015. Each airline should also work to reuse materials on flights where appropriate.



3 Each airline should reduce the materials and packaging brought onto flights, which will reduce waste overall. Each airline should work to ensure that all packaging, cups, plates, and utensils should be recyclable or compostable.

4 As an interim measure, as airlines increase their recycling, they should encourage passengers to remove any recyclable items that the airline doesn't recycle from the plane and place them in airport recycling bins themselves. For example, some airlines currently do not recycle magazines and newspapers. These airlines can encourage passengers to take these items off the plane with them and recycle them in airport recycling bins.

CONSUMER ACTIONS

1 Concerned passengers can help encourage greater recycling by letting airlines know that environmental responsibility is an important factor in their choice of airlines. As a passenger (particularly if you participate in a frequent flyer program with an airline), when you contact airlines to plan your trips, ask what recycling programs are in place and encourage the airlines to create programs if none exist and expand programs already in place. Green America will be collecting data from thousands of airline passengers in 2010 and will publish a follow-up report at the end of 2010, detailing whether there has been any improvement in airline recycling, to persuade companies to clean up their act. A tracking form is can be found on p. 31 and is also available on the Responsible Shopper website (www.responsibleshopper.org).

2 During flights, ask the flight attendants if the waste on that flight is recycled. Attendants know best what items are truly recycled. If the airline does not recycle, or only recycles limited items, politely let the flight attendants know that you would like the airline to recycle more. Then, write to the airline (*please see the "Resources for Passengers" section of this report on p. 32*) and let them know that you would like to see them do more.





3 If the airline does not recycle, take their recyclable items (cans, cups, and papers) off the plane and recycle them in the airport. Then, as noted in Step 2 above, write to the airline and let management know that you would like to see them recycle and have a program for composting waste.

4 While conducting research for this report, Green America discovered that many airlines do not actually recycle what they claim to recycle. Help Green America check recycling policies against practices on flights, to hold airlines accountable in enforcing their recycling and to push them to do better. Over the next year, Green America will be collecting information from passengers on thousands of flights from all different airlines in an attempt to track the reality of what is being recycled. If you are flying over the next year, whether domestically or internationally, please ask your flight attendant about what will actually get recycled from the flight. Then, use the form on the next page to report this information to our research team. If you are flying on an airline that offers Internet service, you can go to our website and report to us directly from the air (www.responsibleshopper.org).

TAKE ACTION

What airlines claim their recycling policies are and what actually happens onboard don't always align. We discovered through several staff members who flew during the time this report was being written that some airlines mentioned did not necessarily recycle what they claimed in their reports. So, to hold airlines accountable in enforcing their recycling and to push them to do better, over the next year, we will be collecting information from the public on thousands of flights from all different airlines.

Help us track the reality of what is being recycled. If you are flying over the next year, whether domestically or internationally, please ask your flight attendant about what will actually get recycled from the flight. Print and use the form below to send us the results by e-mail (airlines@GreenAmericaToday.org), fax (202-331-8166) or mail (Green America, 1612 K St. NW, Suite 600, Washington DC 20006). You can also find an electronic version of this form at our website, www.responsible shopper.org.

Airline _____

Flight # _____ Date _____

Departing Airport _____

Arrival Airport _____

Items recycled (if any) _____

Items that are not recycled _____

Any other information _____





RESOURCES FOR PASSENGERS

Passengers who would like to encourage airlines to improve their recycling practices can write to or call the carriers profiled in this report at the following addresses. If you would like to email an airline, go to the airline's website listed below, and then click on the contact us or customer service link and follow the airline's instructions:



Robert Fornaro
AirTran Headquarters
9955 AirTran Blvd.
Orlando, FL 32827
Phone: 407-318-5600
Fax: 407-318-5900
Toll Free: 800-965-8107
Web: www.airtran.com

Lawrence Kellner
Continental Airlines Headquarters
1600 Smith St. Dept. HQSEO
Houston, TX 77002
Phone: 713-324-2950
Fax: 713-324-2687
Web: www.continental.com

Glenn Tilton
United Airlines
UAL Corporation Headquarters
77 W. Wacker Dr.
Chicago, IL 60601
Phone: 312-997-8000
Web: www.united.com



Gerard J. Arpey
American Airlines
AMR Corporation Headquarters
4333 Amon Carter Blvd.
Fort Worth, TX 76155
Phone: 817-963-1234
Fax: 817-967-4162
Web: www.aa.com

Richard Anderson
Delta Airlines Headquarters
1030 Delta Blvd.
Atlanta, GA 30320-6001
Phone: 404-715-2600
Fax: 404-715-5042
Toll Free: 866-715-2170
Web: www.delta.com

W. Douglas Parker
US Airways Headquarters
111 W. Rio Salado Pkwy.
Tempe, AZ 85281
Phone: 480-693-0800
Fax: 480-693-5546
Web: www.usairways.com



William Walsh
British Airways Headquarters
Waterside (HAA3)
Harmondsworth
London UB7 0GB
United Kingdom
Phone: +44-0844-793-0787
Web: www.ba.com

David Barger
JetBlue Airways Headquarters
118-29 Queens Blvd.
Forest Hills, NY 11375
Phone: 718-286-7900
Fax: 718-709-3621
Toll Free: 800-538-2583
Web: www.jetblue.com

C. David Cush
Virgin America Headquarters
555 Airport Blvd. Fl. 2
Burlingame, CA 94010
Phone: 650-762-7000
Fax: 650-762-7001
Web: www.virginamerica.com

Gary Kelly
Southwest Airlines Headquarters
2702 Love Field Dr.
Dallas, TX 75235
Phone: 214-792-5015
Web: www.southwest.com

Richard Bronson
Virgin Atlantic Headquarters
The Office,
Crawley Business Quarter
Manor Royal, Crawley
West Sussex RH10 9NU
United Kingdom
Phone: +44-1293-562345
Fax: +44-1293-538-337
Web: www.virgin-atlantic.com



METHODOLOGY

Green America selected the airlines to profile in this report based on: 1) a review of the most frequently flown airlines in the US; 2) the desire to include budget carriers (which are increasingly popular); and 3) the desire to include two foreign-based carriers for comparison purposes. In order to document the in-flight recycling programs of the airlines profiled in this report, we obtained information from the following sources:

- ✈ Green America sent a survey requesting information regarding in-flight recycling programs to each airline. The survey requested information regarding the types and volume of materials recycled, frequency and consistency of recycling, and plans for future recycling efforts.
- ✈ Sustainability reports published by airlines, and/or information regarding environmental information provided in annual reports.
- ✈ Information provided on company websites.
- ✈ Publicly available data and information and articles from independent media.

Both the level of information provided directly to Green America in response to our queries and provided publicly varied among airlines (e.g. Virgin America completed the entire survey, whereas several airlines failed to complete it at all). We created the profiles and rankings of airlines based on the information that was provided directly to us and that was publicly available. Each airline was given the opportunity to review Green America's findings and provide clarifications and additional information in advance of the publication of this report. Several airlines did so.

In addition, Green America relied on prior reports documenting the airline industry's record in recycling: 1) National Resource Defense Council's report, *Trash Landings: How Airlines and*





Airports Can Clean Up Their Act, which analyzes recycling policies and programs of airports and airlines and identifies the challenges that airlines face in creating efficient on-board recycling programs and 2) a prior survey of airline recycling, “Flying Clean: Airline Recycling is a Hit-and-Miss Proposition,” published by *E:The Environmental Magazine* in 2002.

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Dennis Greenia (design and production) is the Publications Director for Green America.

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ABOUT RESPONSIBLE SHOPPER (www.responsibleshopper.org)

Responsible Shopper, a program of Green America, reports on global research and campaign information regarding the impact of major corporations on human rights, social justice, environmental sustainability, and more.

The purpose of Responsible Shopper is to alert consumers and investors to problems with companies from which they may shop or in which they may invest, and to encourage individuals to use their economic clout to demand greater corporate responsibility.

Green America draws on information from conventional media as well as reports and campaign briefs from a host of nongovernmental organizations around the world. We also encourage people to shift their purchasing and investing to the most responsible companies through the “Go Green” feature of Responsible Shopper.



GREEN AMERICA (www.GreenAmericaToday.org) is the nation’s leading green economy organization, advancing marketplace solutions for our country’s most serious social and environmental problems. Green America harnesses economic power—the strength of consumers, investors, businesses, and the marketplace—to grow the green economy, stop corporate abuse, curb climate change, and help people and businesses everywhere make economic choices that are good for people and the planet.