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TRANSPORTATION RESEARCH BOARD
OF THE NATIONAL ACADEMIES

ADVANCING RECYCLING FROM AIRCRAFT CABINS

Strategies for Airlines

Commercial airlines in the United States deplane more than 200,000 tons of waste every year, mainly from in-flight food, beverages, and entertainment. Approximately 25 to 35 percent of this waste by weight consists of valuable recyclables such as aluminum cans, plastic bottles, and paper.

THE BUSINESS CASE—WHY RECYCLE?

According to industry estimates, the annual cost of disposing of aircraft waste is estimated at \$20 to \$26 million. Meanwhile, the market value of common recyclable materials generated from U.S. passenger flights is estimated at \$18 to \$26 million annually. While many airlines already recycle materials like aluminum, paper, or plastic bottles, significant opportunities still exist to reduce waste, increase recycling, and reduce provisioning costs. Effective recycling will also help meet new recycling requirements and build a positive green image.

BUILDING ON EXISTING SYSTEMS

Currently, deplaned waste and recyclables are typically directed to one of the following:

- An **airport-managed** system, in which cabin service crews or terminal maintenance personnel take materials to waste or recycling containers owned or operated by the airport or its contractor.
- An **airline-managed** system, in which **either** :
 - Flight kitchen crews take materials to flight kitchens or in-house airline provisioning operations for handling, **or**
 - Cabin service crews place materials in containers owned or operated by the airline or its contractor.

At airports where recycling infrastructure is not available or easily accessible to airlines, including some smaller airports, airlines may back-haul or transport recyclables to another location with the appropriate recycling services. The recycling best practices summarized here fully utilize and expand on the existing airport- and airline-managed systems for handling waste and recyclables. The parent document to this summary sheet, [*ACRP Report 100: Recycling Best Practices—A Guidebook for Advancing Recycling from Aircraft Cabins*](#), provides more information.



Separate summary sheets are available for
flight kitchens and airports (large, medium, small, and non-hubs).



Best Practices for Recycling from Aircraft Cabins for Airlines

STRATEGIES FOR GETTING STARTED

In addition to partnering with airports on recycling, airlines can work with key recycling participants, such as flight attendants, in-house or contracted flight kitchens, and cabin service crews to implement the following **recycling best practices**.

Secure top-down and bottom-up commitment within the airline for recycling efforts. Successful recycling programs combine executive leadership and Green Teams with the active participation of frontline employees, from flight attendants to flight kitchen crews.

Develop consistent procedures to separate materials in flight. Recycling is most likely to succeed when recyclables are separated from garbage before landing.

Track, evaluate, and share data on program performance. Working with airports and flight kitchens to conduct periodic waste assessments and to track recycling rates, cost savings, and per-passenger waste quantities can increase recycling efficiency and uncover opportunities for program improvement.

Make recycling a part of everyday business by providing education, training, and support to flight attendants, flight kitchens, and cabin service crews—and celebrate success. Ongoing education and training improves program results, and sharing accomplishments demonstrates commitment to recycling and sustainable business practices.



Southwest Airlines has a companywide in-flight recycling program that recycled more than 2,500 tons and generated \$200,000 in recycling revenue in 2010.



Delta Air Lines publishes its recycling results regularly, and the U.S. EPA and Green America have publicly recognized the airline's recycling achievements.

OPTIONS FOR TAKING YOUR PROGRAM TO THE NEXT LEVEL

- Make purchasing choices that facilitate recycling and reduce waste.
- Look for opportunities to recycle additional materials that are periodically discarded from aircraft in large volumes, such as in-flight magazines.
- Extend recycling education and training opportunities to regional partner airlines.
- Offer incentives for flight attendants to reduce waste and maximize recycling.
- Address recycling in service agreements and job descriptions.
- Foster collaboration and support industry-wide recycling by sharing best practices with flight kitchens, airports, and other airlines.



Alaska Airlines has conducted regular waste assessments of its in-flight materials since 2007. In 2011, the airline collected 49 percent of all recyclable material generated (by weight), according to assessment results.

RESOURCES

- *ACRP Report 100: Recycling Best Practices—A Guidebook for Advancing Recycling from Aircraft Cabins* (2014)
- Waste Assessment Resources in Appendix C of *ACRP Report 100*
- USEPA WasteWise program: www.epa.gov/epawaste/conserve/smm/wastewise

