

June 1, 2007

PAGE ONE

Boeing and Airbus Compete to Destroy What They Built

How to Recycle a Jetliner
Is Topic of Trash Talk;
Snipping Off the Wings

By DANIEL MICHAELS
June 1, 2007

CHÂTEAUROUX, France -- Airbus and **Boeing** have competed to build jetliners for nearly 40 years. Now they're jockeying to destroy them more efficiently.

One morning at an airfield here, a giant industrial maw chomped through a 250-passenger plane like scissors through tinfoil. A car shredder then turned the remains into gravel-size bits.


"It's heartbreaking, but necessary," said Charles Kofyan, who runs the operation for France's Bartin Recycling Group.

Bartin, which belongs to a trade group formed by Boeing Co., runs one of the most environmentally friendly centers for eliminating unwanted jets. Mr. Kofyan says that, thanks to new dismantling techniques, Bartin can reclaim nearly 90% of an old airliner.

Airbus officials scoff at the claim. "We're doubtful this is what Bartin can achieve," said Olivier Malavallon, manager of environmental affairs at Airbus. According to Mr. Malavallon, only 60% of a plane can be recycled using currently available technology.

Airbus hopes to be able to recycle 95% of a jetliner by 2015. Mr. Malavallon is leading a team of engineers that has dismantled an Airbus A300 jetliner at another French airfield and is carefully studying the results. Their tools include ion-blasting mass spectrometers that take chemical fingerprints of the plane's various materials and a razor-sharp water jet used to sever its wings.

DOW JONES REPRINTS

 This copy is for your personal, non-commercial use only. To order presentation-ready copies for distribution to your colleagues, clients or customers, use the Order Reprints tool at the bottom of any article or visit: www.djreprints.com.

- [See a sample reprint in PDF format.](#)
- [Order a reprint of this article now.](#)

Boeing's undertaking "isn't playing in the same ballpark," Mr. Malavallon boasted as he walked through a hangar filled with jetliner entrails at the Tarbes airport in southwest France.

Behind the latest trash talk between Airbus and Boeing is a growing challenge: Eliminating the world's aging airline fleet as it reaches retirement. Some 7,000 passenger jets are expected to end their flying careers over the next 20 years, so finding ways to recycle them in an environmentally and financially efficient way is critically important.

Until recently, many grounded planes simply rotted alongside runways as so-called "resting wrecks." Lots more sat parked in the Mojave Desert with unplugged hoses dripping corrosive fluids and batteries leaching acid. Stripped of everything of any value, most were eventually sold as scrap.

Then, two years ago, a retired Boeing 737 that had been demolished improperly turned up illegally dumped by unknown culprits in an empty lot in Scotland. Billy Glover, Boeing's director of environmental performance strategy, made the plane his rallying cry for cleaner recycling policies. "It became a way to get people's attention across the industry," he said.



The result was that in April of last year, Boeing, the Bartin outfit and a handful of others involved in jetliner reprocessing created a trade group called the Aircraft Fleet Recycling Association, or Afra. It now includes 23 companies and can recycle more than 150 planes a year at facilities near Tucson, Ariz., and in Châteauroux.

The first step in demolishing a plane -- removing and reselling reusable parts -- is a profitable business, Mr. Kofyan of Bartin explained as he unlocked a storage room at Châteauroux airport. Inside, components of a retired Air Kazakhstan Airbus A310 that Mr. Kofyan's company had bought for \$2.6 million sat neatly stacked and labeled.

"This is our Ali Baba's cave," said Grégoire Lebigot, who handles online sales of plane parts. Before the A310 was ripped apart, its engines were sold in an online auction for \$1.6 million, one shock-absorber for more than \$25,000 and the cockpit windshield for about \$10,000, Mr. Lebigot said. Together, about 1,500 pieces of the plane -- including galley ovens, windows and an internal mechanism called a screw jack -- sold for nearly \$4 million.

Stripped of its parts, the A310 carcass was then rolled outside to a fenced-off lot and

hoisted onto cement blocks so its valuable landing gear could be amputated. Nearby lay the twisted remains of an Air France Boeing 707. Two severed cockpits, gouged from other aircraft, sat like skulls on a museum shelf.



Dan Michaels

Remains of jetliners being recycled at Châteauroux airport in central France

When the A310 was ready for final demolition, a crane operator approached and extended his vehicle's hydraulic arm. Maneuvering powerful pincers, the driver chewed the plane's rear section off with a screech of ripping metal. He then snipped the dead plane's wing as if carving a turkey.

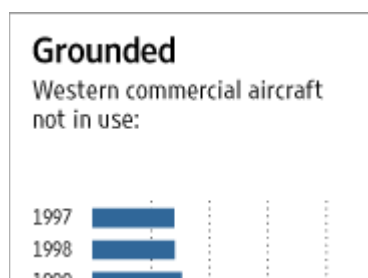
Mr. Kofyan, who was overseeing the destruction process, explained that the lot's concrete paving is specially lined so that nasty liquids, like hydraulic fluid, don't seep through. After shattered plane parts are dumped in the car-shredder, the macerated remains are sorted and recycled for use in cars, bicycles and cans, he said.

Mr. Kofyan shrugs off Airbus officials' doubts, insisting that Bartin recycles as much as 90% of a plane. "We do it and we can show it," he said. Going further than that, however, would be too expensive to make sense, he added.

Airbus's plans to come up with an even more efficient recycling process date back several years to when managers of the European plane maker began to worry that the European Union would tighten its environmental requirements for demolishing and disposing of planes. Airbus officials say they didn't want to be caught off-guard.

So Airbus assembled a team of experts, including specialists from its parent company, **European Aeronautic Defence & Space Co.**, and the waste-management unit of French energy conglomerate **Suez SA**. Early last year, they made Tarbes airfield, near the Catholic Shrine of Our Lady of Lourdes in southwestern France, their base and started work on an old Airbus A300 that had spent 24 years flying in Brazil, Japan and Saudi Arabia.

The team painted the old plane with the project's name, Pamela, for Process for Advanced Management of End-of-Life of Aircraft.



First, technicians removed the tail fin and sucked out fluids that gravity couldn't empty. To clip the wings, engineers decided not to use a chain saw or searing plasma torch, which consume a lot of energy and produce noxious gases, said Bruno Costes, Airbus's director of environmental affairs.

Instead, Suez engineers used a water jet to chop off the wings, and then recycled the water.

After lopping off the cockpit, workers turned to the plane's body. Tethered like mountaineers, workers tested different methods of destruction for different sections of the plane. Suez managers monitored the time it took for each step.

In one section, workers removed galleys, toilets, plastic interior walls, ventilation ducts, wiring and insulation blankets. Then they removed each rivet and bolt.

"Unfortunately, the airplane is well-fitted so it won't break," Mr. Malavallon joked about the effort required.

Once the A300 plane was decimated, workers separated components such as metal skin, structure and fasteners and sorted them by material. Each was weighed and placed in bins labeled like specimen jars for analysis.

Airbus and Suez managers are now crunching all the data they collected from the A300's demolition. They hope the analysis will allow them to figure out the most efficient and profitable way to destroy planes. Mr. Malavallon bets that even Boeing could end up learning from the Airbus experience.

"If we do a good job, Boeing will cut and paste what we've done," chuckled Mr. Malavallon. "We have no problem with that."

Write to Daniel Michaels at daniel.michaels@wsj.com¹

URL for this article:

<http://online.wsj.com/article/SB118066670917621101.html>

Hyperlinks in this Article:

(1) <mailto:daniel.michaels@wsj.com>

Copyright 2008 Dow Jones & Company, Inc. All Rights Reserved

This copy is for your personal, non-commercial use only. Distribution and use of this material are governed by our [Subscriber Agreement](#) and by copyright law. For non-personal use or to order multiple copies, please contact Dow Jones Reprints at 1-800-843-0008 or visit www.djreprints.com.

RELATED ARTICLES AND BLOGS

Related Content may require a subscription | [Subscribe Now](#) -- [Get 2 Weeks FREE](#)

[More related content](#) Powered by  Sphere

