

City Airline and the Environment

Aviation and the environment

Aviation contributes to climate change. In 2008 the aviation industry contributed approximately 2%¹ of the reported CO₂ emissions globally.

In an effort to tackle aviation's contribution to climate change, the EU has decided to impose a cap on CO₂ emissions for all planes arriving at or departing from EU airports. Airlines would then be allowed to buy and sell 'emission credits' on the EU 'carbon market' (called EU Emissions Trading Scheme, EU-ETS). The program will be implemented *1st January 2012* for all flights, both within the EU as well as international ones arriving or leaving the EU₃.

New legislation came into force on 1 January 2010 that requires all airlines to record fuel consumption and submit an annual report to the Swedish Environmental Protection Agency. This provides each airline with an acknowledgement for its emissions, and creates pressure that each flight be carried out with as high a fuel efficiency as possible.

However, we also need to keep in mind that air transport performs many important functions in modern societies. Aviation facilitates economic and cultural exchanges and is a significant source of employment and growth in many regions. Aviation generates 31.9 million jobs globally and global economic impact is estimated at US\$ 3.557 billion. That equals 7.5% of the world's GDP₂ (2007).

Even if aviation's emission contribution is relatively low the industry must take its responsibility and take action to minimize its part as much as possible.

Two examples are green approaches and fuel-efficient aircraft. Aircraft engines have undergone major development during the past 10 years and have become more efficient, significantly reducing fuel consumption.

On the following pages we explain what City Airline does to lower its impact on the environment.

Environmental work today at City Airline

City Airline strives to continuously improve our environmental work in order to minimize our environmental impact. We are working actively together with Svenska Flygföretagens Riksförbund (SFR), European Regions Airline Association (ERA), Miljöbron and University of Gothenburg in environment issues.

1 www.icao.int, www.iata.org, and www.ipcc.ch

2 www.atag.org and www.iata.org

Flight Department

City Airline works closely with airports, other airlines and organizations to work out fuel saving procedures such as *Eco Descents* and *Constant Descent Approaches*. Whenever possible we perform green approaches, an idle descent all the way from cruise level to landing, which lowers emissions during approaches.

Since 1st July 2008 a fuel-saving evaluation program has been implemented in cooperation with the aircraft manufacturer. Adjusted speed settings, lower flap settings and less weight on board are a few examples that are reviewed and analyzed.

Our pilots are being trained in a program that we call the “Economic Flight Project”, which ensures all factors that effect fuel burn are being analyzed. Environmental awareness is nowadays implemented in many procedures. City Airline consequently follows up fuel burn at every sector. A more precise fuel calculation often results in less fuel on-board. Less fuel on-board makes the aircraft lighter and therefore burns less fuel.

Our Operational Control Center in Gothenburg plans every flight to be as fuel-efficient as possible. A more direct route at the most efficient altitude saves fuel, giving considerable environmental benefits.

On ground aircraft generally use APUs (Auxiliary Power Units), small turbine engines that supply the aircraft with electricity. City Airline’s policy is to use the APU as little as possible and instead use electricity from GPUs (Ground Power Units) whenever possible to minimize fuel consumption.

Our in-flight service has recently been updated. Minimizing plastics and using environmentally friendlier alternatives have minimized waste in economy class.

Technical Department

Our own maintenance personnel make daily comprehensive inspections making sure that doors and hatches are as aerodynamic as possible. This reduces drag and fuel consumption, since drag increases fuel burn. For example, the possibility of removing the windshield wipers and replacing them with a rain repellent is being investigated. This would significantly reduce drag and consequently fuel burn by approximately 1.3%³. An aerodynamic kit reducing drag in the aileron and flap area is also being investigated. This would reduce fuel burn further by approximately 1.5%⁴. Maintenance also strives to substitute environmentally hazardous chemicals and minimize risk when handling these.

Office

At the office waste is being recycled and the most environmentally sustainable alternative in all our choice of suppliers and products are being made. When recently moving to a new office building the contractor hired to renovate the premises received an extensive list of environmental demands, such as low-energy lamps, environmentally friendly toilets/water taps, energy-saving motion detectors and timers.

³ According to Embraer calculations

⁴ According to Embraer calculations

Policy

City Airline strives to enhance environmental awareness in our daily activities and has implemented the following Environment Policy in cooperation with the University of Gothenburg.

City Airline will:

- 1) Undertake the responsibility to apply environmental laws and other regulations that concern our company
- 2) Strive to reduce CO₂ emissions from our flight activity
- 3) Make every effort to recycle our waste
- 4) Select the most environmentally sustainable alternative in our choice of suppliers and products
- 5) As far as possible substitute our environmentally hazardous chemicals, and minimize risk when handling these
- 6) Take responsibility for our employees' education and understanding required to ensure that our environmental work and goals will be attained
- 7) Strive for transparency in our environmental work and an active dialog with our staff, clients and other stakeholders
- 8) Strive to continuously improve our environmental work in order to minimize our environmental impact.

If you have questions concerning City Airline's Environment Program, please contact Thomas Adielson, Vice President Quality & Safety at thomas.adielson@cityairline.com