



DEPARTMENT OF AUTOMOTIVE AND AERONAUTICAL ENGINEERING

Developing an Ecolabel for Aircraft

Background

The airline "flybe" introduced an ecolabel for their aircraft in 2007 and had hoped other airlines would follow. This was apparently not the case. The labeling scheme rates emissions such as of NOX, CO2 and noise of an aircraft in the style of ecolabels for fridges, microwaves and washing machines. The information is then broken down into "per seat" and distance-dependent categories, indicating the total amount of emissions alongside a rating from A to F. The result is then presented on a label, which the airline uses for advertising and displaying on board. The methodology used has potential shortcomings, which may inhibit further adaptation. Therefore, a more reliable and meaningful solution shall be investigated on a generally accepted and comprehensible basis.

Task

Task of this thesis is to develop an aircraft-related labeling methodology based on environmental impact. Existing emission determination methods and previous approaches such as flybe's shall be taken into account. Detailed tasks are:

- Describe the purpose of ecolabeling and how it is done
- Determine major environmental impacts of aviation
- How are emissions determined in aviation?
- Analyze existing labels or rating schemes and their potential shortcomings
- How could an ecolabel for aircraft best be defined?

The report should be written in English based on German or international standards on report writing.