Rendering ANS Charges Efficient and Green

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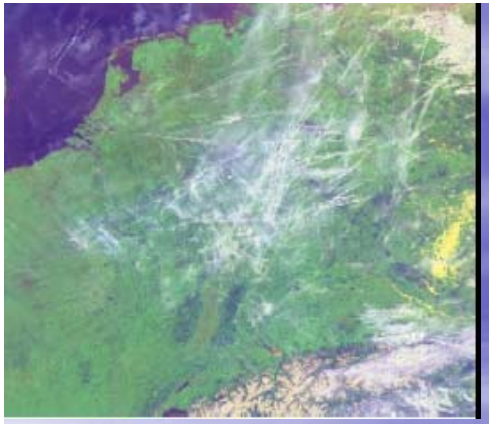
- “Sir Richard Branson, the British magnate and adventurer, said today that all of his profits from his five airlines and train company, projected to be $3 billion through the next 10 years, would be invested in developing energy sources that do not contribute to global warming.”



- Aviation is the fastest growing source of transport greenhouse gases
- CO_2, NO_x, contrails
- Emissions increasing at an average of 4.5 per cent a year in Europe
- Unchecked, they will outweigh the reductions in carbon dioxide achieved through the EU's emissions trading scheme.

www.chooseclimate.org

- A return trip Montreal-Frankfurt on a 747 (80% yield)
- 4 tonnes of CO_2 per passenger, equivalent of total sustainable carbon emissions for *all purposes* for .9 years
- Total warming effect 3 times greater given contrails and NO_x

GHG and ANS?

- “The mess in air traffic control… is punishing the environment”
  - Branson
- How can ANS help heal rather than punish the environment?

A missing equation

Peak hour pricing + Emissions-based charges

Peak hour pricing

- “IATA objects to any system of peak/off-peak charging, a system that only arbitrarily redistributes costs between different users. An airline has no opportunity to adjust to such a system in an efficient way due to the complex task of scheduling its operations.”
- Argues that users have no control over demand factors
- But price should play that role with consumers!

An uncomfortable question

- Should policies be aiming to curb traffic growth?
- Energy sector, by contrast, is not only assuming demand growth but seeking to put policies in place to flatten it

Emissions charges in the suite of environmental measures

- Emissions trading as in EU proposal, consistent with ICAO policy announced at 35th Assembly
- Kerosene tax
- Emissions charges – this is where ANS comes in

2005 Netherlands Environmental Assessment Report

- Emission charges differentiated to environmental efficiency of an aircraft can be applied to CO_2 and non-CO_2 emissions for landing and take-off and/or for each mile flown (en-route charging). When applied to CO_2 only, the instrument is quite similar to fuel taxation. When applied to CO_2 and non-CO_2 the instrument becomes more fine-tuned and capable of addressing the full climate impact of aviation.

Concluding thoughts

- Corporatization and strong pricing signals tend to improve congestion management, which in turn improves environmental performance
- Weight-based charges bear next to no relationship to congestion costs or environmental externalities
- Climate change obliges a re-casting of the system