

European Federation for Transport and Environment

Fédération Européenne pour le Transport et l'Environnement

Europäischer Verband für Verkehr und Umwelt

Secretariat: Rue de la Victoire 26, 1060 Brussels, Belgium

Tel: +32 2 537 6639

Fax: +32 2 537 7394

Aviation and the Environment

by Arie Bleijenberg and Chris Bowers

February 1995

T&E 95/3

Aviation and the Environment

A T&E report by Arie Bleijenberg and Chris Bowers

In January 1994 a committee of leading representatives from the major European airlines presented a report called "Expanding Horizons" to the European Commission on action they wanted to see to get Europe's airlines out of the economic slump they found themselves in. The committee had been set up by the then Commissioner for transport Abel Matutes under the name "Comité des Sages" or Committee of Wise Men. Their report did little to justify their name, yet much of it was used as the basis for the Commission's subsequent report "The way forward for civil aviation in Europe". In this paper T&E explains the major shortcomings of both reports and suggests the basis of a solution for an economic recovery for the airlines which is fair both to other sectors of the economy and to the environment.

1. Background

Crisis in the aviation sector

Abel Matutes' decision to set up the Committee of Wise Men followed a period of lobbying from Europe's airlines in which they complained about a major economic crisis. Despite figures during 1994 which have shown a consistent rise in both freight and passenger figures, there is some justification for the claim that the airlines were having a difficult time. In 1992, 11 of the 15 European airlines running scheduled services operated at a loss. There were two obvious reasons for this: they had been hit by the early-1990s recession, and they were suffering from operating costs far higher than those of competitors on other continents (almost double). The high costs were due to higher infrastructure costs and substantial overcapacity, both related directly to the fragmented European market, protectionism by national governments and extensive state subsidies. Some efforts have been undertaken to help the industry, for example the Commission has a policy that current government subsidies form a serious obstacle to reducing overcapacity and should therefore not be approved, yet it capitulated to pressure from the French government when it wanted to give a massive "final" subsidy to Air France. And since then it has appeared to relax still further its "one time last time" policy on state aid for airlines. By advocating liberalisation of the European air transport market, the sector has opted for increasing competition with all the reorganisation that implies, but with national airlines still a reflection of a nation's pride, state subsidies are proving difficult to eliminate.

Air transport and the environment

There is still some uncertainty as to exactly how and how much aviation damages the environment, but some facts are clear. Today, the aviation sector is responsible for 3% of global carbon dioxide emissions, a share that is likely to rise to about 8% by 2025. Emissions of nitrogen oxides and water vapour at flight altitude constitute a significant risk to the earth's climate. And air traffic causes local nuisance around airports. In other words, the pollution caused by air transport is so intense as to make it unrealistic to present a plan for the future without taking environmental constraints into account. It should also be noted that there is no tax on kerosene, the principal aircraft fuel.

The Wise Men's report

In "Expanding Horizons" the committee made a number of recommendations for achieving further growth in the air transport market while at the same time ensuring a recovery of profitability. The recommendations can be summarised as follows:

- further liberalisation of the European air transport market
- expansion of the capacity of airports and air traffic lanes
- reduction of costs.

2. Criticism of the Wise Men's report

It was probably asking for trouble to call them the "Wise Men", but perhaps the greatest mistake in appointing a committee to put forward a strategy for the future of European air transport was to limit it entirely to senior figures from the aviation sector. Expertise in the environmental field was apparently considered unnecessary, despite the knowledge that environmental considerations will be a major factor in the future of aviation and the requirement under the Single European Act to integrate social and environmental policy into all aspects of the European Community's business.

Even with this limited field of participants, one might still have expected the environment to figure significantly in the final recommendations, but no. In fact, the committee fervently opposed any kind of fiscal or environmental measures that could lead to an increase in costs, it rejected Commission proposals for stricter emissions and noise standards, and it did not mention the impact of emissions at high altitudes, in fact it did not even consult the Commission's environment directorate DG XI. T&E has been led to understand that the then environment commissioner Yannis Paleokrassas was very critical of the report's failure to deal properly with environmental issues, but as such criticism was expressed within the Commission, the rules of confidentiality prevent us from knowing any details.

3. A policy fair to economy and environment

Some tentative steps have been taken to address the environmental concerns in aviation. Air pollution at flight altitudes still remains outside the scope of environmental policy, but the Commission's environment directorate proposed tightening emission standards for aircraft beyond the current levels agreed within the International Council for Civil Aviation (ICAO). However, this was opposed by Rolls Royce, the only aeroengine manufacturer still not producing according to the proposed tighter standards. The absence of a tax on kerosene seems a major fiscal omission when one considers that it is virtually unthinkable for petrol and diesel to be untaxed. The Dutch government has talked about introducing a tax on kerosene, and in their December 1994 Council of Ministers meeting EU environment ministers said excluding commercial aircraft from taxation could not be justified on environmental grounds, yet a kerosene tax still seems a long way off.

T&E therefore presents a four-point plan for an integrated environmental policy for the aviation sector. It is important to stress that we are concerned not just about the environment but also with overcoming the economic slump facing the European aviation industry. In other words, we are working to the brief given to the Committee of Wise Men, but with the added dimension of an environmental policy.

A. A European ban on any form of direct or indirect financial support to the aviation sector

This is required to create a level economic playing field and is fully in line with the aim of liberalising the European air transport market. It would also be good for the environment as it means a cut in public funding of the most polluting mode of transport. The ban would apply to both airports and airlines.

B. Abolition of all tax benefits for the air transport sector

At present, the zero-rated VAT on air tickets is an exception to normal EU financial practice (in that all goods and services are taxed except those relating to international trade). Abolishing this zero-rating on "domestic" flights - which of course now means within the European Economic Area - would raise the price of European flights. There is also an exemption for duty and VAT on "tax-free" goods sold at airports and in-flight. According to calculations by a Dutch research institute, abolition of these concessions for flights within the EU would lead to a 2.7% rise in the price of air tickets.

C. Tightening of aircraft emission and noise standards

The guiding principle should be to promote the maximum use of best available technology. At present, international standards provide for the maximum NOx emissions and noise generation - they must be tightened as soon as possible because the long delay in getting new aircraft technology into operation means that polluting and noisy aeroplanes will be with us for some time anyway. On emissions, the EU should set an example by introducing standards that are stricter than the current ICAO limits. This will not adversely affect the competitiveness of European carriers.

On noise, the standards should forbid any aeroplanes using European airports that are noisier than the current biggest and noisiest plane, the Boeing 747 400 series. In other words, the current noise standards which relate to the size of a plane should be made stricter, and an absolute maximum should be introduced based on the B747, which would mean that if a bigger plane than the B747 were introduced, it would still have to comply with the B747's noise limits.

D. Internalisation of environmental costs

It is unthinkable that petrol and diesel for cars and lorries could be exempt from fuel taxes, and it *ought* to be unthinkable that aviation fuel is exempt from taxes. A kerosene tax should first be introduced on European flights, with the hope that this will eventually be extended to the rest of the world. The level of the tax should correlate to the air pollution caused during flights. In addition, an environmental component should be included in airport dues proportionate to the size and type of aircraft (based on noise and emission characteristics). A surcharge could also be introduced for short-haul flights since these are disproportionately more polluting than medium- and long-haul.

A policy incorporating these four elements would be "greener" and at the same time more "liberal" than that proposed by the Committee of Wise Men. It is more liberal because it creates fairer competition and gets rid of the tax concessions (in effect subsidies) currently enjoyed by the air transport sector which distort competition. It is also "greener" since a

very approximate estimate suggests it would stabilise aircraft emissions of CO₂, H₂O and NOx until 2025 achieved through major improvements in fuel efficiency, higher occupancy levels and a shift from short flights to rail journeys*. Whether stabilising these emissions would be sufficient in the long term will have to be monitored in the context of the overall environmental situation, but it represents a considerable contribution to reducing environmental damage. Finally, under this approach, the aviation sector would still continue to grow, though at around 3% per year, not 6%.

4. Opposition

T&E's proposals will mean change. They will also mean more expensive air tickets and slower growth in the aviation industry, and as such they will be opposed. They will be opposed by powerful groups such as the aviation industry and the travel trade, who are already using arguments which do not stand up to close analysis. Three of these are:

Bad for the economy - Of course, slower growth in the aviation sector will mean fewer jobs in aviation, but consumers who spend less on air travel will spend more on other goods and services, so there will be a growth of employment in other sectors of the economy. There may have to be some help for people who can no longer find work in the aviation sector to re-train for work in another area, but the argument that T&E's strategy would be bad for the economy as a whole is just not true. In fact studies carried out for other transport sectors indicate that if some of the money raised through aviation taxes could be used to reduce taxes on labour, more jobs could be created overall than if the aviation sector were left untouched.

Less mobility - T&E's proposed strategy will mean a little less mobility, yet this can only be seen as a criticism if infinite mobility is assumed to be a good thing. As with any other economic activity, the benefits of mobility should outweigh the costs, and it is precisely for this reason that economic theory says that the *price* should reflect the *costs*. In the case of transport (both airborne and land-based) there is friction here as the price does not reflect the full costs - it is artificially low, thereby leading to an artificially high reliance on transport in the economy and a higher-than-optimum volume of traffic. If the air transport sector is charged true prices, air traffic volume will soon settle at its optimum: neither too much, nor too little.

Bad for islands and outerlying regions - As T&E's strategy would lead to higher prices for air traffic, this would clearly affect places such as islands only accessible by boat or air. Yet this can never be an argument against a good environmental policy for the total volume of air traffic, of which flights to such islands form only a tiny fraction. Governments should perhaps be allowed to compensate these regions with financial help, but they should not allow such regions to wreck an overall environmental policy for the skies (especially as T&E's policy would re-establish a true relationship between the prices of air and boat or rail transport).

^{*} Based on the cost per passenger kilometre using average load factors, high-speed rail is much better for the environment than short-haul flights. However, a word of caution is worth adding. A casual evaluation of 10 international high-speed train links shows an average growth in mobility of 10%, which suggests that the additional growth wipes out the environmental gains (although the situation can vary widely from line to line). Governments should therefore be careful about automatically assuming that investment in high-speed rail will necessarily solve the environmental problems associated with short-haul flights.

5. Conclusion

Even though it is now nearly 10 years since the Single European Act introduced the social and environmental dimensions into Community legislation, the Commission is still having difficulty marrying these considerations with big business's traditional aspiration to straight growth. Environmental factors have generally been viewed as an obstacle to growth, and as a result they have been generally used merely as "window dressing" in European legislation so legislators and industry can claim to have taken the environment into account without really doing anything to integrate the environment into patterns of economic activity. This syndrome is clearly reflected in the recommendations of the Committee of Wise Men.

T&E's proposed five-point plan does marry economic, social and environmental considerations, and as such is much more in tune with EU legislative requirements than the Wise Men's report and the Commission's follow-up document. Yet the air transport industry is very powerful and has influential friends, as the pressure on the Commission over the Air France subsidy clearly shows. The Commission will therefore come under strong pressure to resist T&E's proposals, but it should stand firm, realising that any economy can only thrive if its prices reflect true costs. The original Treaty of Rome talked of eliminating distortions of competition - the Commission should insist on this and view all but short-term opposition as merely the defence of vested interests, not the defence of the common good.

T&E therefore urges the Commission and all European decision-makers to adopt the proposals in this paper as European air policy, and to encourage member state governments to make all related decisions (such as expansion of airports, use of high-speed rail, ferry connections, etc) fit this framework.

6. Sources

- Committee of Wise Men for Air Transport
 "Expanding Horizons"
 January 1994
- European Commission
 "The way forward for civil aviation in Europe"
 Brussels, 1994
- A N Bleijenberg & R Moor, for T&E

 "Air pollution by air traffic"

 Brussels, August 1993 (T&E 93/14)
- W Fransen & J Peper, for Dutch Directorate General of Civil Aviation
 "Atmospheric effects of aircraft emissions"
 The Hague, June 1994
- Project Mainport & Milieu Schiphol
 "Integrale versie Plan van aanpak Schiphol en omgeving"
 April 1991
- 6 K L Bangma & E Boneschansker, for Instituut voor Onderzoek van Overheidsuitgaven
 "Public financial support to civil aviation"
 The Hague, February 1993
- G de Wit, for Centre for Energy Conservation and Environmental Technology
 "The effects in employment of a shift in taxation from labour to the environment"

 Delft, April 1994
- 8 IFEU, for WWF, Deutsche Bundesbahn and Deutsche Reichsbahn Vergleich von Personenverkehrssystemen, in Kilometer-Bilanz Personenverkehr Heidelberg, July 1992
- P Hofstetter and F Meienberg, for Greenpeace Switzerland and VCS
 Persönliche Energie- und CO₂bilanz, Berechnungsgrundlagen und Kommentar zum
 Fragebogen
 Zurich, October 1992
- J Pavaux, L Colonmb de Daunant, F Lisio and N Rault, for Institute of Air Transport Rail/Air Complementarity in Europe Paris, December 1991
- M Barrett, for WWF
 Aircraft pollution environmental impacts and future solutions
 Geneva, August 1991

Annex: T&E publications

T&E 92/6	Making Fuel Go Further - a critical evaluation of different political instruments for improving the fuel
	efficiency of new cars and other light vehicles (one copy free)
T&E 92/7	External Costs of Air Pollution - the case of European transport (reduced price 200 BEF)
T&E 92/8	The European Commission's White Paper on Transport - a guide for the environmental campaigner (free)
T&E 93/1	Damage Costs of Air Pollution - A survey of existing estimates (350 BEF)
T&E 93/2	Marginal and average costs of reducing nitrogen oxides and sulphur dioxide emissions in Europe (350 BEF)
T&E 93/3	EC 1996/97 Emission Limit Values for Cars - a response to the Commission's proposals (free)
T&E 93/4	Wanted: a European policy for transport and environment. A response to the Commissions White Paper
	"The Future Development of the Common Transport Policy" (free)
T&E 93/5	Taxation and Infrastructure Costs of Heavy Goods Transport (BEF 400)
T&E 93/6	Getting the Prices Right. A European Scheme for Making Transport Pay its True Costs (220 p.) (BEF 625)
T&E 93/7	Getting the Prices Right. A European Scheme for Making Transport Pay its True Costs, short version
	(30 p., free)
T&E 93/8	External Benefits of Transport? (BEF 350)
T&E 93/11	Five Star Classification Scheme - Environmental classification and labeling of new cars (free)
T&E 93/12	Pour la vérité des coûts - un modèle Européen pour la couverture par les différents modes de transport de
	l'intégralité de leur coûts (final report of "Internalising Social Costs of Transport"; short version) (free)
T&E 93/13	Internalising the Social Costs of Noise (BEF 400)
T&E 93/14	Air Pollution by Air Traffic - overview of problems and possible solutions (BEF 400)
T&E 94/1	Combined Transport - the sustainable mode for European goods transport. Preliminary report (BEF 350)
T&E 94/2	Greening Urban Transport - a survey (BEF 350)
T&E 94/3	The Concept of Sustainable Transport (BEF 350)
T&E 94/4	Taxes on Motor Fuels in the European Community (free)
T&E 94/5	Memorandum on Transport and Environment to the European Council of Ministers and the German
	Presidency (free)
T&E 94/6	Greening Urban Transport - Cycling and pedestrian policy (400 BEF)
T&E 94/6A	Greening Urban Transport - European examples of good cycling and pedestrian policy (annex to T&E 94/6,
	400 BEP)
T&E 94/7	Greening Urban Transport - Parking policy (400 BEF)
T&E 94/8	Greening Urban Transport - Public transport (400 BEF)
T&E 94/9	Greening Urban Transport - Environmentally improved grades of petrol and diesel (400 BEF)
T&E 94/10	Greening Urban Transport - Environmentally improved buses (400 BEF)
T&E 94/11	Greening Urban Transport - Urban road pricing (400 BEF)
T&E 94/12	Greening Urban Transport - Land use planning (400 BEF)
T&E 94/13	The Potential of Substitute Fuels for Reducing Emissions in the Transport Sector (400 BEF)
T&E 94/14	Memorandum on Transport and Environment to the European Parliament (free)
T&E 94/15	Environmental Car Guide 1994/95, based on models on the Swedish market (400 BEF)
T&E 95/1	Laboratory testing of 31 car models - an analysis of emissions from cars subjected to heavy loads and a
	supplementary test cycle (350 BEF)
T&E 95/2	Environmental Rating of Cars - experiences and recommendations (free)
T&E 95/3	Aviation and the Environment (free)

To order any of these reports, please send your order with a Eurocheque, or a cheque drawn on any Belgian bank, for the right amount in Belgian Francs to the T&E secretariat in Brussels. For orders without advance payment an extra 200 BEF will be charged for administration costs. In certain cases a small charge for mailing will be added.

About this report

In January 1994 a committee of leading representatives from the major European airlines was set up under the name "Comité des Sages" or Committee of Wise Men. Their final report "Expanding horizons" did little to justify their name, yet much of it was used as the basis for the Commission's subsequent report "The way forward for civil aviation in Europe".

In this paper "Aviation and the Environment" T&E explains the major shortcomings of both reports and suggests the basis of a solution for an economic recovery for the airlines which is fair both to other sectors of the economy and to the environment.

About T&E

The European Federation for Transport and Environment (T&E) is Europe's primary non-governmental organisation campaigning on a Europe-wide level for an environmentally responsible approach to transport. The Federation was founded in 1989 as a European umbrella for organisations working in this field. At present T&E has 27 member organisations in 16 countries. The members are mostly national organisations, including public transport users' groups, environmental organisations and the European environmental transport associations ('Verkehrsclubs'). These organisations in all have several million individual members. Several transnational organisations are associated members.

T&E closely monitors developments in European transport policy and submits responses on all major papers and proposals from the European Commission. T&E frequently publishes reports on important issues in the field of transport and the environment, and also carries out research projects. The list of T&E publications in the annex provides a picture of recent T&E activities.

T&E member organisations

Aksjon Naermiljo og Traffikk (Norway)
Associació per la Promoció del Transport Públic (Spain)
Associación Ecologista de Defensa de la Naturaleza (Spain)
Associazione Utenti del Trasporto Pubblico (Italy)
Česky a Slovenský Dopravní Klub (Czech and Slowak Republics)
Danmarks Naturfredningsforening (Denmark)

Danmarks Naturfredningsforening (Denmark) Environmental Transport Association (United Kingdom)

Fédération Nationale des Associations d'Usagers de Transports (France)

Gröna Bilister (Sweden)
Groupement des Usagers ded Transports
Intercommunaux Bruxellois (Belgium)
Komitee Milieu en Mobiliteit (Belgium)
Lega per l'Ambiente (Italy)

Liikenneliitto (Finland)
Magyar Közlekedési Klub (Hungary)
Norges Naturvernforbund (Norway)
Pro Bahn (Germany)
Stichting Natuur en Milieu (Netherlands)
Svenska Naturskyddsföreningen (Sweden)
Transport 2000 (United Kingdom)
Verkehrsclub Deutschland (Germany)
Verkehrsclub Österreich (Austria)
Verkehrsclub der Schweiz (VCS/ATE/ATA)
(Switzerland)
Wijs op Weg (Netherlands)

Associate members

Community of European Railways European Cyclists' Federation Union International de Transport Public Worldwide Fund for Nature, EC office