



The Government's Response to the Environment, Transport and Regional Affairs Committee's Report

Aviation Safety

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*Presented to Parliament by the Deputy Prime Minister
and Secretary of State for the
Environment, Transport and the Regions
by Command of Her Majesty
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THE GOVERNMENT'S RESPONSE TO THE ENVIRONMENT, TRANSPORT AND REGIONAL AFFAIRS COMMITTEE'S REPORT

AVIATION SAFETY

INTRODUCTION

The Government welcomes the Environment, Transport and Regional Affairs Committee's Report 'Aviation Safety' and acknowledges the detailed consideration which the Committee has given to this important subject. This response forms a consolidated reply on behalf of the Government and of the Civil Aviation Authority (CAA): since the Committee's recommendations often refer to the CAA's Safety Regulation Group, these responses also refer, when appropriate, simply to the Safety Regulation Group. The Government and the CAA agree that the current high standard of aviation safety in the United Kingdom must be maintained and, where possible, improved. The Committee's recommendations cover a wide range of matters and are dealt with point by point in the following paragraphs.

RESPONSE TO THE COMMITTEE'S CONCLUSIONS AND RECOMMENDATIONS

The Regulatory Regime

- (a) **We recommend that the record of the Safety Regulation Group be closely overseen by the Government in the short term. In the longer term, we believe that the Safety Regulation Group should be incorporated within an independent Transport Safety Authority, once one is established in line with previous recommendations we have made (paragraph 11).**

The Government and the Safety Regulation Group recognise that aviation safety needs constant vigilance by regulators and industry alike. We believe that the development of objective-based regulations, where appropriate, has the potential to improve significantly safety levels by requiring operators to implement Quality Assurance Systems and by encouraging the use of formal Safety Management Systems. This approach is balanced by detailed and prescriptive regulation in many areas, and this will remain the case.

The Government oversees the performance of the Civil Aviation Authority generally, through approval of the Corporate Plan; the agreement of performance indicators, including a number covering the work of the Safety Regulation Group; and frequent contacts with both Board Members and officials. It does not interfere in the day-to-day work of the Safety Regulation Group.

In its White Paper on integrated transport, the Government noted that the establishment of a single independent authority for transport safety regulation would have widespread implications for current organisational arrangements. It therefore undertook to review the arrangements for transport safety, including accident investigation. This review is now under way, and once completed will put the Government in a position to respond substantively to the Committee's recommendations in this area.

- (b) **We note the particular difficulties posed by overseeing the safety case of airlines which have contracted out functions, and by the emergence of "virtual airlines". We recommend that the Safety Regulation Group ensures that its oversight of such airlines is of the same high standard as the rest of its work (paragraph 12).**

The Government and the Safety Regulation Group note that the practice of airlines contracting out a number of services has increased. The Safety Regulation Group monitors how airlines which contract out services ensure a safe operation. However, the Safety Regulation Group recognises that the practice of contracting out provides new challenges to its oversight system. It is currently assessing whether any changes are needed in its approach.

The Committee uses the term ‘virtual airline’ to describe an extreme where a company selling flights may consist of little more than a management company, leasing all services from companies which may be based anywhere in the world. There are no such companies operating in the UK at the present. Under UK legislation travel firms who are not themselves operators of aircraft may legally sell flight accommodation in the UK provided they hold an Air Travel Organiser’s Licence (ATOL). The firm buys flight accommodation from a carrier who holds an operating licence and is therefore subject to safety regulation and monitoring. Very occasionally, new airlines have started-up in this way. For example, EasyJet and Debonair held ATOLs for a short time during which they themselves did not carry passengers but sold carriage on flights operated by licensed carriers. Although a company could in theory operate permanently in this way, the lack of flexibility and control over its services resulting from the use of a contracted carrier means that companies starting up in this way eventually apply for an operating licence in their own right, as did EasyJet and Debonair.

- (c) **We believe that it is essential that the Department of the Environment, Transport and the Regions should take a close interest in the response of SRG to recommendations made by AAIB. We recommend that it ensures that the CAA should be made publicly accountable for its actions following reports by the AAIB (paragraph 14).**

The CAA is already publicly accountable for its actions in response to safety recommendations addressed to it. The Authority publishes its initial response to the AAIB recommendations in its ‘Follow-up Action’ on Occurrence Reports (FACTOR) and subsequently submits to the Government an annual Progress Report on all outstanding safety action. The Chief Inspector of Air Accidents is asked to advise the Government on any continuing safety concerns arising out of the Progress Report.

Approximately half of the AAIB’s safety recommendations are directed to the CAA. The AAIB is discussing with the CAA whether its annual Progress Report should include information on actions taken by other bodies in response to safety recommendations addressed to them, in order to provide the public with a more complete picture of progress on all AAIB safety recommendations.

- (d) **We recommend that, if the Safety Regulation Group continues to experience staff shortages, the Government should relax the pay constraints it imposes on the CAA. We believe that the rates of pay of those involved in safety regulation should reflect its fundamental importance (paragraph 16).**

Government policy is that pay across the public sector should reflect recruitment and retention, affordability, service delivery objectives and the Government’s inflation target. The CAA’s pay is set according to this framework, which specifically recognises the need to ensure pay is sufficient to recruit staff and to ensure that the CAA is able to deliver its objectives, including those relating to safety regulation. The 1999 pay settlement, for example, resulted in additional payments to the Safety Regulation Group’s Flight Operations Inspectors.

Staffing of Air Accidents Investigation Branch (DETR)

- (e) **We recommend that the Government should review the level of staffing of the AAIB and, if investigations are currently delayed because of a shortage of inspectors, it should provide adequate resources to ensure that such shortfalls are made up (paragraph 17).**

The Government agrees annually a Business Plan for AAIB which lays down target times for the completion of investigations and the required level of staffing. If shortages develop in any AAIB area, appropriate action is taken in consultation with the Chief Inspector of Air Accidents. Difficulties in the recruitment and retention of Operations Inspectors were addressed by a pay re-structuring exercise in the latter part of 1998. Since then there has been a successful recruitment which has returned the Inspectorate to full strength.

The Government is currently reviewing its transport expenditure priorities for 2000/01 with final allocations to be decided later in the year. The requirement to assure continued recruitment and retention of AAIB staff is reflected in the bids under consideration.

The Committee's claim, in paragraph 17, that expenditure by the Department of the Environment, Transport and the Regions on the AAIB has not increased over the past five years is incorrect. Table 15a of the Department's Annual Report 1999 covers only Programme Expenditure and is, in any case, rounded up to the nearest £ million: programme expenditure varies each year according to the number and nature of investigations carried out. On the other hand, AAIB's running cost expenditure increased by 18% between 1994/95 and 1998/99. As noted above, the bids for 2000/01 would, if successful, result in further additional resources for AAIB.

Regulation of helicopter industry by Safety Regulation Group

- (f) **We recommend that the Safety Regulation Group re-examines its regulation of the helicopter industries, and we specifically recommend that those who inspect helicopter operating and maintenance companies have adequate specific experience of helicopters (paragraph 18).**

The Safety Regulation Group has established a joint working group with the industry (the Small Helicopter Action Group), with a wide-ranging remit to examine the regulation of small and medium helicopters. This working Group will produce an action plan by the end of 1999, relevant elements of which will, in turn, be incorporated into the SRG Business Plan for the following year.

With regard to inspecting staff, public transport helicopter flying operations are monitored by specialist Flight Operations Inspectors. These staff have significant levels of operating experience gained whilst previously employed flying for civil companies, where they have normally also had management and/or training responsibilities. Inspectors maintain current experience by flying helicopters on, for example, North Sea, police, and emergency service operations.

All the Safety Regulation Group's Airworthiness Surveyors are trained in the basic theory and principles of helicopters so that they can work with industry on day-to-day matters. In addition, Surveyors assigned specifically to helicopter maintenance organisations or helicopter type-liason duties are trained on the type concerned and usually have extensive helicopter experience in industry before joining SRG.

National Air Traffic Services

- (g) We recommend that the Department of the Environment, Transport and the Regions seek to reassure the General Aviation community that the changes proposed to the status of NATS will have no effect on its activities (paragraph 20).**

Safety is the overriding priority of the Government's proposals for a PPP for NATS. Establishing the PPP will make a positive contribution to aviation safety by separating safety regulation from service provision and by ensuring that NATS has access to the project management skills and private sector capital to deliver its investment programme. The Government recognises the vital importance of regulatory stability at a time of change and the safety regulation of NATS will remain with the CAA's Safety Regulation Group (SRG), who have wide ranging powers and ample experience of regulating private sector entities. The Government will ensure that the strategic partner in the PPP shares the Government's – and NATS' – commitment to safety.

The Government fully recognises that airspace policy is a regulatory activity, with both safety and economic implications. Under the proposed PPP, airspace regulation will remain a public sector function, discharged by the CAA through the Director of Airspace Policy (DAP), who will continue to discharge his functions on behalf of all airspace users, whether civil or military. The safety of all users, including general aviation users, will be of paramount importance.

Leisure flyers are currently exempt from most air traffic control charges and NATS is not seeking to change this. There are differing views as to whether these exemptions should continue, irrespective of the proposed NATS public/private partnership (PPP). Sufficient safeguards will be built into the legislative framework to ensure that there would be full consultation with air users if, at any time in the future, there were proposals to remove these exemptions.

- (h) We are extremely disappointed, and very concerned, by the reports of increased numbers of overloads of air traffic controllers at LATCC. We believe that they are evidence of the risk to safety posed by continued delays of NERC at Swanwick. Once again, we strongly recommend that whatever steps are necessary be taken to ensure that NERC is opened as soon as possible: in the interim, we recommend that all available measures, including limiting the number of flights entering the airspace sectors concerned, be taken to eliminate overloads at LATCC (paragraph 23)**

The Government takes seriously overload reports, as they draw attention to problems experienced by controllers in the operation of the United Kingdom air traffic control system. Controllers are encouraged to report overloads, which are thoroughly investigated, the causes identified, and action taken to reduce the risk of reoccurrence. The Government notes that so far in 1999, the trend in overload reports is consistent with the number of reports in 1998, despite increased traffic levels. Investigations have shown that an overload report does not necessarily mean that safety has been compromised: in the three years 1996-98, there were only four occasions where an overload event was associated with a loss of separation.

The Government is committed to opening the New En-Route Centre at Swanwick as soon as possible. In the meantime, traffic flow management measures will continue to be used, as necessary, to ensure safety is maintained in UK airspace. The new centre will be introduced into operational service as soon as possible, consistent with the need to ensure its safe and sustained operation. The most likely date for the centre to become operational is winter 2001/2, as first noted by the Defence Evaluation and Research Agency's report; since then NATS has met all target milestones towards that date. The Government is determined that further delays should not occur, since this would hinder the introduction of new technologies needed to cope with forecast traffic growth.

Future national institutional arrangements

- (i) We recommend that the Safety Regulation Group should in due course be transferred to a new independent Transport Safety Authority. The remaining functions of the CAA should either continue to be the responsibility of the Authority or absorbed within another, existing, body or Government department (paragraph 26).
- (j) We do not at this stage recommend any alteration to the means by which the Safety Regulation Group is funded. That said, when our recommendation that the Group should be transferred to an independent Transport Safety Authority is implemented the whole question of funding should be revisited (paragraph 28).

The Government is considering the Committee's recommendations for an independent Transport Safety Authority, as described in our response to a) above. The implications for the CAA and questions of funding, in the event of a decision to establish an independent Transport Safety Authority, are issues for the present transport safety review.

European institutional arrangements

- (k) We view both the existing Joint Aviation Authorities and the proposed European Aviation Safety authority with some concern. The United Kingdom's aviation industry has a proud safety record and very high standards of regulation: both have at least the potential to be undermined by membership of these organisations. Accordingly we recommend that the Government should clarify whether the European Aviation Safety Authority would have legal power to impose the standards it proposes, and the Government should seek an undertaking before joining the Authority that the safety standards of the United Kingdom will not be adversely affected (paragraph 35).

It has been long recognised that the international nature of the aerospace and aviation industries calls for an international approach to safety regulation, both at global level through the International Civil Aviation Organisation (ICAO) and, for some thirty years now, at European level through the Joint Aviation Authorities (JAA). More recently, competence for many aspects of aviation safety has transferred from national authorities to the European Community by virtue of the incorporation of Joint Aviation Requirements into European law. The Civil Aviation Authority has always played a leading role in developing harmonised European standards in the JAA. Accident rates in Europe are among the lowest in the world, and there is no evidence that harmonisation of standards has in any way reduced levels of safety in the UK.

However the JAA's lack of legal status handicaps its effective operation. National variations in some standards remain, while unevenness in the implementation of common standards raises doubts about the quality of safety regulation in some countries. Cumbersome committee structures, and the need to achieve consensus, delay decision-taking. For these reasons all EU Member States, along with all significant EU aviation industry interests, support the creation of a new, powerful pan-European Aviation Safety Authority (EASA). It is planned to establish EASA by international treaty, and to give it legal powers to impose the standards it adopts. The UK is playing a leading role in the developing the terms of the draft treaty, in order to ensure that UK safety standards will not be adversely affected. National safety authorities will retain powers to react immediately to any safety problem becoming apparent at short notice. UK ratification of any future Treaty establishing EASA will be subject to Parliamentary scrutiny.

A strong EASA which attracts the highest calibre of staff will ensure high, uniform safety standards throughout Europe and, simultaneously, remove barriers to UK companies trading competitively. The concept of aviation safety regulation at European level is now well entrenched, and the Government firmly believes that the potential advantages of a powerful EASA far outweigh any possible drawbacks of the UK being unable to act unilaterally.

Foreign aircraft inspections

- (l) **We recommend that the Department of the Environment, Transport and the Regions reviews its policy towards ramp checks of foreign registered aircraft, with a view to carrying out a greater number, some on a random basis. We further recommend that airlines which do not meet good standards of airworthiness be dealt with rigorously, by preventing them operating into this country (paragraph 37).**

Following a review at the beginning of the year the Government doubled the budget for ramp checks on foreign aircraft. Funds are now available to carry out up to 200 ramp checks each year. The UK also has access to the results of all ramp checks carried out within Europe under the European Civil Aviation Conference *Safety Assessment of Foreign Aircraft* (SAFA) Programme. Ramp checks will continue to be targeted on airlines or aircraft where we have specific concerns as random checks are not compatible with our obligations under the Chicago Convention.

The Government agrees that when airlines or aircraft fail to meet the appropriate airworthiness or operational standards rigorous action must be taken, including – where appropriate – the withdrawal of permits for the airline to operate to the UK. Currently, it is not issuing permits to aircraft registered in three countries because of earlier safety concerns which have not yet been satisfactorily addressed: these are aircraft from Liberia, Gambia and Tajikistan. Two other countries have been subject to similar restrictions, now lifted: these were Nigeria and Uganda.

The Government believes that it is important to balance national actions of this kind with effective international auditing of countries' safety oversight capabilities, as is being provided by the International Civil Aviation Organisation's *Safety Oversight Programme*. The Government will continue to support this programme through the funding of CAA experts to take part in audits.

Approaches to Heathrow

- (m) **We recommend that the Department of the Environment, Transport and the Regions and the Civil Aviation Authority should re-examine whether aircraft in difficulty, and particularly twin-engined aircraft with one engine inoperative, should land at Heathrow if to do so requires them to approach the airport over central London (paragraph 38).**

The Government and the CAA are committed to ensuring the safety of aircraft flying into all UK airports. We firmly believe that, in accordance with international practice, the final decision on where to land an aircraft safely in an emergency must rest with the aircraft commander. Large twin engine aircraft are designed to be able to fly safely on one engine. Air traffic controllers are fully briefed and trained on handling emergencies and will advise aircraft commanders on the most appropriate routes and airports to use.

Staff and Training in the aviation industry

- (n) We commend British airlines for the steps they have taken to address the anticipated increase in the number of pilots who have reached or will shortly reach retirement age. Nevertheless, we regard the situation with some concern since we believe that it is potentially a safety critical matter. Therefore, we recommend that the Safety Regulation Group should conduct regular reviews of the training and recruitment regimes put in place by the airlines to deal with the problem, and should publish the results of the reviews in its Annual Report (paragraph 46).

British airlines have the prime responsibility to develop recruitment and training policies to deal with the professional pilot retirement profile; the Government and the Safety Regulation Group also commend their efforts in this respect.

The Safety Regulation Group is aware of the potential effect of the retirement profile on overall experience levels. It continually monitors the training standards of all Air Operator Certificate holders, as part of its ongoing oversight programme, so as to ensure that appropriate standards are both set and achieved. In addition, airlines are required to detail, in their Operations Manuals, minimum crew experience levels for specific posts. The Safety Regulation Group would not expect to be involved in the recruitment policies of airlines which are solely the concern of the airlines.

- (o) We are concerned that the projected shortage of pilots will adversely affect safety standards by leading airlines to seek to employ pilots from states whose standards are not equivalent to those of the United Kingdom. The Government and the Safety Regulation Group should ensure that the safety standards of British airlines are not compromised by their employment of pilots who have qualified abroad, regardless of our membership of the JAA, and in future the European Aviation Safety Authority (paragraph 47)

Currently no pilot holding a licence which has not been granted under the Air Navigation Order is allowed to fly a UK-registered aircraft for the purpose of public transport, unless that licence has been explicitly 'validated' by the CAA. Applications for validation are granted only to pilots who hold a licence granted in accordance with the Chicago Convention and who also meet specific qualification and experience requirements, pass a theoretical examination in UK law and pass a flight test conducted by a CAA Examiner. This validation process is subject to EC Directive 670/91 which sets out specific provisions for the mutual acceptance of licences granted by another EU Member State.

In future, the CAA will conduct pilot licensing in accordance with the harmonised Joint Aviation Requirements – Flight Crew Licensing (JAR-FCL) – which have been developed by the JAA and which, together with other JAA Member States, the CAA is in the process of implementing. This should ensure that wherever trained, a pilot holding a JAR-FCL licence is qualified to an equivalent standard to one trained in the UK. Other licence holders will be the subject of safety checks, similar to those set out above, before their licence is validated for flight in an aircraft registered in any of the JAA Member States.

The Government is confident that the CAA's validation processes have ensured that safety standards of British airlines have been in no way compromised by employing pilots qualified abroad and that there will be no diminishing of those standards as a result of the implementation of JAR-FCL.

- (p) **We recommend that the Government should take steps to ensure that access to training and practice for General Aviation pilots is not unduly limited, either by cost or by planning constraints. We believe that all pilots should be given incentives to undergo training and, accordingly, recommend that VAT should not be charged for appropriate training courses. We recommend that the Safety Regulation Group should re-examine the regulatory burden it places on General Aviation pilots and others, to ensure that the cost of meeting regulations does not inhibit pilots from keeping in current practice (paragraph 54).**

The Government considers that it is primarily for the industry to negotiate and establish adequate training facilities. The Safety Regulation Group will consider constructive proposals to lessen the cost burden placed on general aviation but, to date, no formal propositions have been lodged via the SRG General Aviation Consultative Committee. There is as yet no evidence of a direct causal link between the availability of training facilities in UK and the incident rates for General Aviation.

The Government does not accept that VAT should no longer be charged for pilot training courses. Most, if not all, pilot training supplied in the UK is liable to VAT at the standard rate because it is provided by fully commercial, profit making concerns. This does not provide problems for companies sending their pilots on courses as they can reclaim the tax charged as it relates to their business activity. One or two instances have been brought to Customs and Excise attention that involve individuals undertaking pilot training who are not registered for VAT so they have to bear the tax. As VAT is a tax on the final customer this could not be altered without infringing EC VAT Directives and creating distortions with other providers of commercial training. A VAT tribunal has heard a case on this point and ruled that pilot training is a taxable activity.

- (q) **We are extremely concerned about the shortage of aircraft maintenance engineers, both in the commercial and the General Aviation sectors. We recommend that in its consideration of the matter the Government's inter-departmental group should consider the situation in both sectors, and should urgently take steps to address the problem. In particular, as we have already said in relation to pilots, we believe that incentives should be given to encourage training and, accordingly, recommend that VAT should not be charged for appropriate training courses. Nevertheless, primary responsibility for overcoming this problem – particularly in the commercial sector – rests with the aviation industry, and we strongly recommend that it follows the proposals made in the Royal Aeronautical Society's report into aircraft maintenance engineers. Since it is a source of engineers for the future, the commercial industry should take some responsibility for the General Aviation sector, and should offer appropriate assistance to bolster aircraft maintenance engineering in the General Aviation sector (paragraph 60).**

The Committee rightly identified that the aviation industry has the primary responsibility for ensuring that there is a sufficient supply of trained aircraft maintenance engineers. The Government agrees, however, that we should consider if there is more we can do to support industry's efforts and this is the main task of our inter-Departmental working group which met for the first time on 10 August 1999.

The group's aims include: establishing as clearly as possible the present numbers of aircraft maintenance engineers, the present and potential future scale of the shortage and the reasons for it; establishing the present arrangements for the training of aircraft maintenance engineers including any support which the Government already provides; finding out what steps the industry is taking to tackle the problem; identifying measures which the Government could take to support industry's efforts; and assessing as far as possible the likely costs and benefits of any such Government measures. The group hopes to report to Ministers early in 2000.

Although the group's first meeting was mainly concerned with agreeing actions to meet the above aims, it did consider the Committee's specific recommendation that VAT should not be charged for appropriate training courses. The group concluded that VAT is not an issue as far as training of aircraft maintenance engineers is concerned. The vast majority of vocational training of aircraft engineers is undertaken in public training institutions and is already exempt from VAT when supplied to companies or individuals. If similar training is provided to the employees of an aviation company by a commercial training body, any VAT charged can be reclaimed by the company as part of its business activity.

- (r) **We recommend that the Safety Regulation Group, in its regular audits of airlines' safety strategies, actively addresses the possibility that commercial pressures have been brought to bear on pilots and others at the expense of safety, particularly in relation to slot times. If it finds any evidence that such incidents have occurred, it should impose rigorous sanctions on the companies concerned (paragraph 64).**

The Safety Regulation Group has no evidence that commercial pressures are brought on pilots to sacrifice safety in order to meet slot times. Were any evidence of unsafe commercial pressures to be identified by the Safety Regulation Group, they would be brought immediately to the attention of the operator's accountable manager. Rigorous sanctions are available which guarantee that remedial action will be both timely and appropriate: the Safety Regulation Group can direct the operator to act in a particular way; and vary, suspend or, ultimately, revoke an Air Operator's Certificate or maintenance approval.

Audits and inspections are carried out by Inspectors assigned to each air operator. In addition, some Flight Operations Inspectors fly as line pilots with air operators. Together these actions provide a unique insight into the carrier's safety culture. The Safety Regulation Group is confident that this insight, combined with the formal audit process, ensures that any commercial pressures applied to the detriment of safety will – if present in any form – be identified.

Lessons from recent incidents

- (s) **We recommend that the Safety Regulation Group re-iterates its advice to airlines that the priority in certain emergencies, such as in-flight fires, is to land, rather than to seek to dump fuel in order to avoid an overweight landing. It should ensure through its inspections that airlines are passing on that information to aircrews. Furthermore, we recommend that air traffic controllers be given similar advice, so that they are able to respond appropriately to such emergencies (paragraph 69)**

The Safety Regulation Group will produce guidance material which will re-iterate advice that pilots should – if the nature of an emergency so demands – seek assistance to land immediately, and that air traffic controllers should be prepared to respond accordingly. This material will be disseminated by, amongst other means, the issue of a safety-related Aeronautical Information Circular, which will result in widespread coverage amongst both flight crew and air traffic controllers. Additionally, the Flight Operations Department will, through routine checks of Operations Manuals, ensure that this advice is published where it can be readily accessed by flight crew.

The advice will reinforce guidance issued to all UK licensed air traffic controllers in late 1997. Guidance to controllers on the handling of aircraft emergencies is also detailed in the Manual of Air Traffic Services. All controllers are required to complete annual training, and assessment, in the handling of aircraft in emergency. They are trained, when faced with major emergencies such as an in-flight fire, to advise the pilot of the nearest suitable airfield and to provide navigational assistance.

- (t) **We recommend that any further recommendations that arise from investigations into the accidents involving Boeing 737s are rapidly implemented by British airlines. We further recommend that the Safety Regulation Group should closely monitor the situation, to ensure that all necessary steps to deal with the problem with the aircraft's rudder are taken (paragraph 75)**

It is standard practice for the Safety Regulation Group to adopt any Airworthiness Directives (AD) issued by the Federal Aviation Administration (FAA) that relate to US-manufactured aircraft. Thus, any further recommendations that arise from investigations into accidents involving Boeing 737s, that are considered by the FAA to warrant AD action, will automatically be mandated in the UK. The Safety Regulation Group will closely monitor the situation, to ensure that all necessary steps are taken to ensure the safety of Boeing 737s in service with UK airlines.

- (u) **We recognise that this is a delicate matter. We do not suggest that the rights of injured passengers, or the relatives of those who have died, to seek compensation should be overly curtailed: nor do we wish to create a situation where disreputable or negligent manufacturers or airlines get away scot-free. Nevertheless, we believe that an appropriate balance can be struck. We recommend that the Government should open a dialogue with interested parties, both within the industry and outside, to consider limiting to a sensible level the liability of manufacturers and operators in the event of aviation accidents. It should explore such matters within relevant international fora, with the objective of limiting liability worldwide. We believe that such a step may help to encourage greater openness about safety matters in the aftermath of accidents (paragraph 79)**

The International Civil Aviation Organisation in May 1999 convened a worldwide Diplomatic Conference which culminated in the signing of a Convention for the Unification of Certain Rules for International Carriage by Air (the 1999 Montreal Convention). The most significant aspect of this agreement, which represents a balance of various interests, is the abolition of limits of air carrier liability in respect of death or injury to passengers in the event of an accident. There is no hard evidence to suggest that airlines and manufacturers seek to hide the cause of accidents. Moreover, limiting the liability of manufacturers and operators would significantly reduce the rights of passengers or their dependants to obtain full compensation in the event of death or serious injury.

Aircraft cabin safety

- (v) **We are extremely concerned about the delay in implementing the Transport Committee's recommendation to increase the width of the aisle through the forward bulkhead of the Boeing 737 in particular, following the accident at Manchester airport. We recommend that the Safety Regulation Group take steps to expedite the matter, and reports to us what steps it intends to take (paragraph 82)**

The Joint Aviation Authorities (JAA) have agreed common standards for the design and construction of large passenger aircraft registered in JAA Member States. A major design change of the kind recommended for Boeing 737s is best achieved through an amendment to the relevant Joint Aviation Requirement. The Civil Aviation Authority (CAA) has always played a leading role in developing harmonised European standards in the JAA and the Government is committed to this process of promoting high, uniform safety standards. It would undermine Government efforts to achieve uniform high standards if the UK were to take a unilateral, selective approach to applying JAA standards.

A CAA proposal to increase the minimum gap width in bulkheads that lead to floor level exits was accepted by the JAA for further consideration and is currently working its way through the JAA rulemaking process. There has been a first round of consultations on the proposed rule change and its economic impact. Comments received are now under review by a specialist JAA group, which includes strong CAA representation. The review is taking longer than expected due to several technical and economic areas of contention which will require additional study to resolve. The CAA will continue to play a major role in taking the work forward and estimates that the final proposals for changing the rules will be issued in July 2000.

- (w) We recommend that further research be conducted by the Safety Regulation Group into the benefits and dangers of rearward-facing seats, and by the Civil Aviation Authority generally into passengers' views of them, particularly passengers fully informed of the benefits they might bring in the event of an accident. The results of that research should form the basis of the Safety Regulation Group's approach, through the JAA, to the issue (paragraph 84).**

The Safety Regulation Group is unable to identify any further research which would be likely to yield new information about the safety benefits and dangers of rearward facing seats. The benefits, such as reduced head injuries for example; and the disbenefits, which include danger to the face from flying objects, and new seats with higher seat backs resulting in impediment to evacuation, are well known. On balance, a clear safety case for rearward-facing seats has not been made.

Nor is there international support for further research on rearward facing seats. An international cabin safety research technical group, comprising cabin safety specialists from the US, the JAA (including Civil Aviation Authority experts), Canada and Japan, were asked to prioritise cabin safety issues and did not identify rear-facing seats as a priority issue. This reinforces the Safety Regulation Group's judgement that passenger safety would better enhanced overall by pursuing options other than rearward facing seats. For example, there is a project, funded by the EC, to develop an aircraft seat with an integral three-point harness which is likely to produce more significant and readily achievable safety benefits, through reduced head injuries.

The Safety Regulation Group recognises that passenger reaction is difficult to gauge. The Trident aircraft had some rearward facing seats which were unpopular with passengers and subsequently removed. In order to test passenger reaction accurately, it would be necessary to let a sample of passengers experience a rear-facing seat in the operational environment. However, it is not clear that any operator would be willing to take the commercial risk inherent in participating in such a trial, especially as there are not overwhelming safety reasons for promoting one.

- (x) We recommend that the Safety Regulation Group should again conduct research into smokehoods, and the benefit which they might bring to evacuations of aircraft during fires. They should publish the results of their research within a limited timescale, and, unless there are compelling safety reasons why they should not be carried, the Safety Regulation Group should seek to make the provision of smokehoods on commercial aircraft a mandatory requirement (paragraph 86).**

The Safety Regulation Group examined the potential benefits and problems of smokehoods fully after the investigation into the Manchester accident and issued a specification for developing a smokehood in 1998. These specifications were rigorous and were developed with the full participation not only of industry but also of independent experts. To the Safety Regulation Group's knowledge, no satisfactory product was developed. The Safety Regulation Group subsequently undertook a review of aircraft fire safety, which included examination of the benefits and costs of a range of comprehensive safety improvements, including smokehoods. The conclusions were published in 1991.

The Safety Regulation Group is not convinced that more research into smokehoods can be any better justified than more research into rearward facing seats. Earlier research indicated that the delays in evacuation caused by untrained passengers trying to don smokehoods would cause a greater loss of life from fire than the number saved by reduced inhalation of toxic fumes.

The Safety Regulation Group is firmly of the view that its regulatory priorities should be to continue to research methods of reducing the level of penetration of fire into the cabin and slowing its subsequent spread, thus extending evacuation time, and to provide better exit routes.

Disruptive passengers

- (y) **We recommend that before further steps are taken to address the problem of disruptive passenger behaviour or air rage, the Safety Regulation Group, together with the British airlines, should urgently commission research to investigate its cause (paragraph 90).**

The Government considers that any further action to address the problem of disruptive passengers must be based on reliable information on the number and types of incidents. The Working Group established by the Government in late 1998, which includes representatives of the airlines, the Police and the Safety Regulation Group, has already agreed a new unified reporting scheme for incidents of disruptive behaviour on board all UK aircraft: this took effect on 1 April 1999. Once the new arrangements have provided sufficient data to draw conclusions on the extent and nature of the problem, the Working Group will consider what, if any, research is necessary.

English as language of the air

- (z) **We are convinced that if English is not firmly established as ‘the language of the air’ then safety will be put at risk. We therefore recommend that the Safety Regulation Group, through the JAA, seek to ensure that English becomes mandatory for all communication between aircraft and air traffic control (paragraph 92).**

The Government and the Safety Regulation Group recognise that the adoption of a standard language for the aviation radio communications, together with the strict application of agreed radiotelephony phraseology would improve aviation safety. The Government is therefore supporting an initiative by ICAO to carry out a comprehensive review of the existing provisions on all aspects of international civil aviation communications.

Military aircraft

- (aa) **We are concerned about the activities of military aircraft in uncontrolled airspace, and we recommend that the Ministry of Defence install collision warning systems in aircraft involved in high speed, low-altitude flights (paragraph 93).**

The Government made clear in the Strategic Defence Review White Paper that it intended to develop a new Collision Warning System (CWS) for the ground attack Tornado GR4 aircraft. This system is expected to enter service early in the next century. The fitting of CWS to other fast jets will be kept under review as work on the Tornado's CWS progresses. The Ministry of Defence and Civil Aviation Authority will continue to cooperate on other measures designed to minimise the possibility of collisions between civil and military aircraft.

Conclusions

- (bb) All involved in aviation should remember that openness and criticism aid safety, and that the maintenance of safety standards is the most important factor in building a successful aviation industry. We recommend that the Department of the Environment, Transport and the Regions maintain a careful relationship between the Safety Regulation Group and the industry it regulates, and act firmly to ensure that the Regulation Group remains independent and critical of the industry. As we have said, splitting the Safety Regulation Group from the Economic Regulation Group, through the creation of an independent Transport Safety Authority, would help to ensure that the safety regulator maintained an appropriate distance from the industry (paragraph 96).**

The Government agrees that the maintenance of safety standards is the most important factor in building a successful aviation industry. It is not surprised therefore that industry witnesses to the Committee's inquiry wished to stress the continuing levels of safety being achieved in the industry, at a time of sustained growth. The Government does not agree that such evidence necessarily indicates that the UK aviation industry has become "extraordinarily complacent" about safety or that the co-operative nature of its relationship with regulatory authorities might lead to cosiness. The Government, however, readily accepts the Committee's implied injunction to be vigilant against any erosion of the current independence of safety regulation, for whatever reason.

There is, rightly, a continual and vigorous public debate about flight safety. Forecast increases in traffic may be taken to imply more accidents unless safety standards are improved still further. The Government, the Safety Regulation Group and all in the UK industry are keenly aware of this challenge; each must remain independent of the other whilst finding solutions through effective collaboration. The current review of arrangements for transport safety is addressing the relationship between regulation, accident investigation and Departmental sponsorship of transport industries.

- (cc) Safety cannot be addressed in a vacuum. Some of the difficulties we have discussed in this Report, such as the shortage of pilots and maintenance engineers, are not simple matters which can be resolved by the Safety Regulation Group alone. Above all, the dramatic growth of the aviation industry in recent years, partly as a result of deregulation, has resulted in greater overcrowding in the airspace of the southeast of England, and at the airports in that area. There are strong arguments on safety grounds in favour of increasing runway capacity. Such matters can only be dealt with in the context of an overall aviation policy, and we look forward to the publication of the Government's aviation daughter document (paragraph 97).**

The Government does not accept that air traffic growth is leading to unsafe "overcrowding" in the airspace or at airports in the south-east of England. The existing use of runways and airspace meets the highest standards of safety. Air traffic controllers will introduce flow management measures to ensure that no more traffic than can be safely handled is allowed into the system.

The Government agrees that runway capacity issues can only be dealt with in the context of an overall aviation policy. As stated in "A New Deal for Transport" the Government intends, following an earlier recommendation of the Committee, to produce a White Paper, setting out airports policy to a 30-year horizon. The Government intends to consult widely with interested parties during the development of this policy.



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