

<b>Title:</b> <b>Implementation of Authority-to-Carry Scheme under Section 124 of Nationality, Immigration and Asylum Act 2002</b>  <b>Lead department or agency:</b> Home Office <b>Other departments or agencies:</b>	<b>Impact Assessment (IA)</b>
	<b>IA No:</b> OSCT
	<b>Date:</b> 15/03/2011
	<b>Stage:</b> Consultation
	<b>Source of intervention:</b> Domestic
	<b>Type of measure:</b> Secondary legislation
<b>Contact for enquiries:</b> Predeparturechecks@homeoffice.x.gsi.gov.uk	

## Summary: Intervention and Options

### What is the problem under consideration? Why is government intervention necessary?

As one of the highest priorities for UK national security, the Government is committed to addressing the threat from terrorism and protecting the UK and its interests. In response to the attempted terrorist attack over Detroit in December 2009, work was commissioned to consider how such arrangements could be used to prevent individuals who pose a threat from travelling to the UK. Government intervention is necessary since it is the first responsibility of any administration to protect the safety and security of its citizens and it is the Government that manages information and intelligence on individuals that pose a terrorist threat.

### What are the policy objectives and the intended effects?

The objective is to make changes to pre-departure checks to better identify individuals who pose a terrorist threat and prevent them from travelling to the UK. This is proposed to be achieved through the implementation of a statutory authority-to-carry scheme to be operated by the secretary of State under section 124 of the Nationality, Immigration and Asylum Act 2002 which will require carriers to seek authority to bring passengers to the UK. The intended effect is to reduce the probability of a terrorist attack on a UK-bound vessel.

### What policy options have been considered? Please justify preferred option (further details in Evidence Base)

**1. Do nothing.** The Government assess that, each year, 2-3 people who travel to the UK may be identified as likely to meet criteria for posing a terrorist threat to the UK.

**2. Manual alerts sent through e-Borders underpinned by Authority to Carry legislation.** This is the preferred option. Individuals identified from Advance Passenger Information as posing a threat to the UK are prevented from travelling to the UK through the use of alerts to carriers, thus reducing the probability of a terrorist attack. This option has a higher net present value compared to the automated alternative.

**3. Automated Authority to Carry underpinned by Authority to Carry legislation.** This is a more technology intensive option, comprising the use of e-Borders to identify individuals of interest and automated alerts to the passenger's carrier. It achieves a higher success rate (and therefore bears lower risk) but is much more costly than Option 2. This option remains a long-term objective and has the potential to provide further benefits to the UK beyond counter-terrorism.

<b>When will the policy be reviewed to establish its impact and the extent to which the policy objectives have been achieved?</b>	It will be reviewed 01/2015
<b>Are there arrangements in place that will allow a systematic collection of monitoring information for future policy review?</b>	Yes

## Summary: Analysis and Evidence

## Policy Option 2

Description: Manual alerts sent through e-Borders underpinned by Authority-To-Carry legislation

Price Base Year 2011	PV Base Year 2011	Time Period Years 10	Net Benefit (Present Value (PV)) (£m)			
			Low: Optional	High: Optional	Best Estimate: -£13.25m	
<b>COSTS (£m)</b>	<b>Total Transition</b> (Constant Price) Years		<b>Average Annual</b> (excl. Transition) (Constant Price)		<b>Total Cost</b> (Present Value)	
Low	Optional		Optional		<b>Optional</b>	
High	Optional		Optional		<b>Optional</b>	
Best Estimate	£0		£1.54m		<b>£13.25m</b>	
<b>Description and scale of key monetised costs by 'main affected groups'</b>						
<p>The largest cost of this policy is to the carrier industry. Carriers will be required to put in place 24-hour points of contact able to receive refusals of Authority to Carry in English, acknowledge receipt and give effect to that refusal. At a maximum this is assumed to occupy almost five members of full-time staff. The cost provided is economic rather than financial (i.e. it considers opportunity cost as well as financial outlay) and is estimated at £1.54m per annum. It is possible that existing carrier staff will be able to take on the role. As an unintended consequence there is a small possibility that individuals with similar personal details to an individual identified as posing a terrorist threat will be temporarily denied boarding, interrupting their travel. These individuals could be delayed in their journey by up to twenty-four hours and costs have been allowed for this.</p>						
<b>Other key non-monetised costs by 'main affected groups'</b>						
None						
<b>BENEFITS (£m)</b>	<b>Total Transition</b> (Constant Price) Years		<b>Average Annual</b> (excl. Transition) (Constant Price)		<b>Total Benefit</b> (Present Value)	
Low	Optional		Optional		<b>Optional</b>	
High	Optional		Optional		<b>Optional</b>	
Best Estimate	not quantified		not quantified		not quantified	
<b>Description and scale of key monetised benefits by 'main affected groups'</b>						
<p>The intended benefit of the policy is to reduce the probability of a terrorist attack on a UK-bound journey. It is extremely difficult to estimate the current cost and probability of a terrorist attack of this type, let alone the impact that this policy will have on these figures. Benefits have therefore not been quantified.</p>						
<b>Other key non-monetised benefits by 'main affected groups'</b>						
<p>Although benefits cannot be quantified, a break-even analysis has been performed. Analysis shows that the policy would only have to prevent a terrorist attack once every few hundred years in order to be worthwhile. This benefit occurs only if the person is identified and would not otherwise have been stopped by other port security measures.</p>						
<b>Key assumptions/sensitivities/risks</b>					<b>Discount rate (%)</b>	3.5

It is assumed that the policy has no deterrence or displacement effect. The costs and benefits are assumed to fall on all carriers equally, regardless of the carrier's nationality or volume of journeys. The costs of providing a point of contact are assumed to be negligible. Key uncertainties are around: (1) the success rate of the manual system (assumed to be 99%); (2) the rate of individuals assessed to pose a terrorist threat and (3) the number of false positives (passengers whose carrier is wrongly refused authority-to-carry). The costs are most sensitive to changes in the number of false positives; however this is not a key driver. For example, increasing the number of false positives by a factor of ten increases the total cost of the policy by just 1%. Benefits are very sensitive to assumptions about the system's success rate and the number of individuals correctly refused authority to carry.

<b>Direct impact on business (Equivalent Annual)£m:admin</b>		<b>In scope of OIOO?</b>	<b>Measure quantifies as</b>		
<b>Costs: £1.54m</b>	<b>Benefits:</b>	<b>Net: -1.54m</b>	<b>Yes</b>	<b>In</b>	

## Enforcement, Implementation and Wider Impacts

What is the geographic coverage of the policy/option?			United Kingdom		
From what date will the policy be implemented?			01/11/2011		
Which organisation(s) will enforce the policy?			Home Office		
What is the annual change in enforcement cost (£m)?			0		
Does enforcement comply with Hampton principles?			Yes		
Does implementation go beyond minimum EU requirements?			No		
What is the CO <sub>2</sub> equivalent change in greenhouse gas emissions? (Million tonnes CO <sub>2</sub> equivalent) Negligible			<b>Traded:</b>	<b>Non-traded:</b>	
Does the proposal have an impact on competition?			No		
What proportion (%) of Total PV costs/benefits is directly attributable to primary legislation, if applicable?			<b>Costs:</b> 0	<b>Benefits:</b>	
Annual cost (£m) per organisation (excl. Transition) (Constant Price)	<b>Micro</b>	<b>&lt; 20</b>	<b>Small</b>	<b>Medium</b>	<b>Large £0.11m</b>
Are any of these organisations exempt?	No	No	No	No	No

## Specific Impact Tests: Checklist

Set out in the table below where information on any SITs undertaken as part of the analysis of the policy options can be found in the evidence base. For guidance on how to complete each test, double-click on the link for the guidance provided by the relevant department.

Please note this checklist is not intended to list each and every statutory consideration that departments should take into account when deciding which policy option to follow. It is the responsibility of departments to make sure that their duties are complied with.

Does your policy option/proposal have an impact on...?	<b>Impact</b>	<b>Page ref within IA</b>
<b>Statutory equality duties<sup>1</sup></b> <a href="#">Statutory Equality Duties Impact Test guidance</a>	Yes	See EIA
<b>Economic impacts</b>		
Competition <a href="#">Competition Assessment Impact Test guidance</a>	No	
Small firms <a href="#">Small Firms Impact Test guidance</a>	No	
<b>Environmental impacts</b>		
Greenhouse gas assessment <a href="#">Greenhouse Gas Assessment Impact Test guidance</a>	No	
Wider environmental issues <a href="#">Wider Environmental Issues Impact Test guidance</a>	No	

<sup>1</sup> Race, disability and gender Impact assessments are statutory requirements for relevant policies. Equality statutory requirements will be expanded 2011, once the Equality Bill comes into force. Statutory equality duties part of the Equality Bill apply to GB only. The Toolkit provides advice on statutory equality duties for public authorities with a remit in Northern Ireland.

<b>Social impacts</b> Health and well-being <a href="#">Health and Well-being Impact Test guidance</a> Human rights <a href="#">Human Rights Impact Test guidance</a> Justice system <a href="#">Justice Impact Test guidance</a> Rural proofing <a href="#">Rural Proofing Impact Test guidance</a>		
	No	
	Yes	Annex 2
	No	
	No	
<b>Sustainable development</b> <a href="#">Sustainable Development Impact Test guidance</a>	No	

# Summary: Analysis and Evidence

# Policy Option 3

Description: Automated Authority to Carry underpinned by Authority-to-Carry legislation

Price Base Year 2011	PV Base Year 2011	Time Period Years 10	Net Benefit (Present Value (PV)) (£m)		
			Low: Optional	High: Optional	Best Estimate: -£1688m

COSTS (£m)	Total Transition (Constant Price) Years	Average Annual (excl. Transition) (Constant Price)	Total Cost (Present Value)
Low	Optional	Optional	Optional
High	Optional	Optional	Optional
Best Estimate	£0	£196m	£1688m

### Description and scale of key monetised costs by 'main affected groups'

This option has a high ICT cost for both carriers and government. Quotes are being sought at consultation stage, but as a rough estimate, the annual cost is estimated to be £95m to Government and £101m to industry. There is also some cost to individuals who are falsely prevented from travelling as a result of the system

### Other key non-monetised costs by 'main affected groups'

None

BENEFITS (£m)	Total Transition (Constant Price) Years	Average Annual (excl. Transition) (Constant Price)	Total Benefit (Present Value)
Low	Optional	Optional	Optional
High	Optional	Optional	Optional
Best Estimate	not quantified	not quantified	not quantified

### Description and scale of key monetised benefits by 'main affected groups'

The intended benefit of the policy is to reduce the probability of a terrorist attack on a UK-bound journey. It is extremely difficult to estimate the current cost and probability of a terrorist attack of this type, let alone the impact that this policy will have on these figures. Benefits have therefore not been quantified.

### Other key non-monetised benefits by 'main affected groups'

This option is expected to bear less risk than option 2, since the success rate is assumed to be 100%. However, break-even analysis suggests that the policy costs more than the current average cost of terrorist attacks, and thus does not represent value for money.

### Key assumptions/sensitivities/risks

Discount rate (%)

3.5

The largest uncertainty is around the cost of implementing ICT. Since quotes are not yet available, 50% of the estimated annual cost to carriers of e-borders and 50% of the estimated annual cost to the US government of implementing ESTA are used. Benefits are highly sensitive to the estimated 'hit rate' and success rate of the system (assumed to be 100%), but have not been quantified.

Direct impact on business (Equivalent Annual)£m:admin	In scope of OIOO?	Measure quantifies as
Costs:£101m	Yes	In
Benefits:	Net:	

## Enforcement, Implementation and Wider Impacts

What is the geographic coverage of the policy/option?	United Kingdom				
From what date will the policy be implemented?	01/11/2011				
Which organisation(s) will enforce the policy?	Home Office				
What is the annual change in enforcement cost (£m)?	0				
Does enforcement comply with Hampton principles?	Yes				
Does implementation go beyond minimum EU requirements?	No				
What is the CO <sub>2</sub> equivalent change in greenhouse gas emissions? (Million tonnes CO <sub>2</sub> equivalent) Negligible	Traded:		Non-traded:		
Does the proposal have an impact on competition?	Yes				
What proportion (%) of Total PV costs/benefits is directly attributable to primary legislation, if applicable?	Costs: 0		Benefits:		
Annual cost (£m) per organisation (excl. Transition) (Constant Price)	Micro	< 20	Small	Medium	Large £7.2m
Are any of these organisations exempt?	No	No	No	No	No

## Specific Impact Tests: Checklist

Set out in the table below where information on any SITs undertaken as part of the analysis of the policy options can be found in the evidence base. For guidance on how to complete each test, double-click on the link for the guidance provided by the relevant department.

Please note this checklist is not intended to list each and every statutory consideration that departments should take into account when deciding which policy option to follow. It is the responsibility of departments to make sure that their duties are complied with.

Does your policy option/proposal have an impact on...?	Impact	Page ref within IA
<b>Statutory equality duties<sup>2</sup></b> <a href="#">Statutory Equality Duties Impact Test guidance</a>	Yes	See EIA
<b>Economic impacts</b>		
Competition <a href="#">Competition Assessment Impact Test guidance</a>	No	
Small firms <a href="#">Small Firms Impact Test guidance</a>	No	
<b>Environmental impacts</b>		
Greenhouse gas assessment <a href="#">Greenhouse Gas Assessment Impact Test guidance</a>	No	
Wider environmental issues <a href="#">Wider Environmental Issues Impact Test guidance</a>	No	
<b>Social impacts</b>		
Health and well-being <a href="#">Health and Well-being Impact Test guidance</a>	No	
Human rights <a href="#">Human Rights Impact Test guidance</a>	No	
Justice system <a href="#">Justice Impact Test guidance</a>	No	
Rural proofing <a href="#">Rural Proofing Impact Test guidance</a>	No	
<b>Sustainable development</b> <a href="#">Sustainable Development Impact Test guidance</a>	No	

<sup>2</sup> Race, disability and gender Impact assessments are statutory requirements for relevant policies. Equality statutory requirements will be expanded 2011, once the Equality Bill comes into force. Statutory equality duties part of the Equality Bill apply to GB only. The Toolkit provides advice on statutory equality duties for public authorities with a remit in Northern Ireland.

## Evidence Base (for summary sheets) – Notes

Use this space to set out the relevant references, evidence, analysis and detailed narrative from which you have generated your policy options or proposal. Please fill in **References** section.

### References

Include the links to relevant legislation and publications, such as public impact assessment of earlier stages (e.g. Consultation, Final, Enactment).

No.	Legislation or publication
1	Partial Impact Assessment of Provision on Passenger, Service and Crew Data by carriers to the UK Border Agencies (August 2006)
2	Impact Assessment of Provision on Passenger, Service and Crew Data by carriers to the UK Border Agencies (Final Version, November 2007)
3	National Security Strategy (18 October 2010)
4	Strategic Defence and Security Review (19 October 2010)
5	Home Office Business Plan 2011-2015 (8 November 2010)

Add another row

### Evidence Base

Ensure that the information in this section provides clear evidence of the information provided in the summary pages of this form (recommended maximum of 30 pages). Complete the **Annual profile of monetised costs and benefits** (transition and recurring) below over the life of the preferred policy (use the spreadsheet attached if the period is longer than 10 years).

The spreadsheet also contains an emission changes table that you will need to fill in if your measure has an impact on greenhouse gas emissions.

#### Annual profile of monetised costs and benefits\* - (£m) constant prices (discounted costs)

	Y <sub>0</sub>	Y <sub>1</sub>	Y <sub>2</sub>	Y <sub>3</sub>	Y <sub>4</sub>	Y <sub>5</sub>	Y <sub>6</sub>	Y <sub>7</sub>	Y <sub>8</sub>	Y <sub>9</sub>
<b>Transition costs</b>										
<b>Annual recurring cost</b>	£1.54	£1.49	£1.44	£1.39	£1.34	£1.30	£1.25	£1.21	£1.17	£1.13
<b>Total annual costs</b>	£1.54	£1.49	£1.44	£1.39	£1.34	£1.30	£1.25	£1.21	£1.17	£1.13
<b>Transition benefits</b>										
<b>Annual recurring benefits</b>										
<b>Total annual benefits</b>										

\* For non-monetised benefits please see summary pages and main evidence base section



Microsoft Office  
Excel Worksheet

# Evidence Base (for summary sheets)

## A. Strategic Overview

### A.1 Background

International terrorism affecting the UK or its interests is identified as a Tier One Priority Risk in the National Security Strategy. As one of the highest priorities for UK national security, the Government is committed to addressing the threat from terrorism and protecting the UK and its interests at home, at our border and internationally. In response to the attempted terrorist attack over Detroit on 25 December 2009, a range of work has been undertaken to consider the effectiveness of aviation and border security. This included a review of the UK's counter-terrorism watchlisting arrangements. Work was commissioned to consider how these could be used to prevent those who pose a threat from travelling to the UK. This is a key priority for the Government. The Strategic Defence and Security Review and the Home Office Business Plan include a commitment that changes will be made to pre-departure checks to better identify people who pose a terrorist threat and prevent them flying to or from the UK.

Current powers are available to refuse entrance or admission to the UK to passengers of all nationalities (with the exception of UK nationals). The Home Secretary has existent powers to exclude certain individuals from the UK. The visa regime is a further mechanism to deny entry clearance to passengers seeking to travel to the UK. However, these powers cannot prevent an individual attempting to travel and carriers will not always be aware that an individual has been excluded from the UK. Implementation of an 'Authority-to-Carry' scheme provides the ability to prevent certain categories of individuals who would be refused leave to enter at the UK border from travelling to the UK.

### A.2 Groups Affected

The largest cost of this policy is to the carrier industry. Although figures are illustrative only, the automated option (option 3) presents a significantly higher cost to carriers than the manual option (option 2). Under option 3, there is also a cost to the Government of implementing an appropriate IT system. As an unintended consequence there may also be costs to travellers if individuals are incorrectly prevented from boarding a plane. This occurs because there is a small possibility that individuals with similar personal details to an individual identified as posing a terrorist threat will be temporarily denied boarding, interrupting their travel.

It is expected that there will be no impacts beyond those to carriers, travellers and government. Since all travellers affected by the legislation will be non-UK citizens, distributional analysis of costs to travellers has not been considered.

### A.3 Consultation

A targeted consultation exercise will take place involving key industry partners and other stakeholder groups, which will inform the development of the scheme and seek to identify ways that any negative impacts on industry can be reduced. On completion of the consultation the Statutory Instrument will be developed and laid in Parliament with a view to coming into force in November 2011.

## B. Rationale

The first duty of the Government is to maintain the safety and security of the UK and its citizens. The Strategic Defence and Security Review and the Home Office Business Plan sets out that changes will be made to pre-departure checks to better identify people who pose a terrorist threat and prevent them from flying to or from the UK.

The Joint Terrorism Analysis Centre currently assesses the threat to the UK from international terrorism to be SEVERE, meaning an attack is highly likely. Terrorist attacks are considered high

impact, low probability events. Between 1999 and 2009, there were ten major terrorist plots in the UK<sup>3</sup>: The shoe bomb plot (2001), Ricin bomb plot (2003), fertiliser bomb plot (Operation Crevice, 2003), London transport attacks of 7 July 2005 and 21 July 2005, transatlantic liquid bomb plot (Operation Overt, 2006), Haymarket car bombs and Glasgow airport attack (Operation Seagram, 2007), Ibrahim suicide vests (Operation Vulcanise, 2008) and the Exeter bombing (2009). Of these, just one (7 July 2005) was successful; the rest were either disrupted prior to execution by the police, or failed after execution due to perpetrator error or police intervention.

Using assumptions about the potential fatalities, casualties, property damage and tourism losses that each of these attacks could have caused<sup>4</sup>, it was estimated that the average cost of these terrorist attacks, had they each been successfully executed, would be in the region £950m - £1.64bn. Given the current 'success rate' (1/10) and frequency of attacks (10 per decade), it is estimated that in an average decade, terrorist attacks will cost the UK economy £828m - £1.43bn<sup>5</sup>. Using these figures, break-even analysis can be performed to show that a relatively low-cost counter-terrorism policy such as the preferred option needs to prevent only one attack in hundreds of years in order to break-even.

Options that avoid regulation have also been considered and it will be discussed with industry during consultation as to whether these provide opportunities to temporarily and partially mitigate the threat in advance of legislation. However, this approach cannot fully or adequately meet the policy objective. Regulation is necessary to apply the scheme fully with alignment to the roll-out of e-Borders to ensure best possible mitigation of the threat. Further, it is anticipated that carriers may prefer a clear instruction from government rather than needing to rely on voluntary arrangements.

## C. Objectives

The objective is to make changes to pre-departure checks to better identify individuals who pose a terrorist threat and prevent them from travelling to the UK. This is proposed to be achieved through the implementation of a statutory authority-to-carry scheme to be operated by the secretary of State under section 124 of the Nationality, Immigration and Asylum Act 2002 which will require carriers to seek authority to bring passengers to the UK. The intended effect is to reduce the probability of a terrorist attack on a UK-bound vessel.

## D. Options

Option 1 is to make no changes (do nothing).

### Option 2 Manual alerts sent through e-Borders underpinned by Authority to Carry legislation

The provision of Advance Passenger Information (API) to e-Borders will constitute a request by the carrier for authority to carry all the passengers to the UK. Carriers will be informed by the UK Border Agency by telephone and email if any of those passengers should not be brought to the UK. Carriers will not have 'authority to carry' such passengers.

### Option 3 Automated Authority to Carry underpinned by Authority to Carry legislation

The provision of Advance Passenger Information (API) to e-Borders will constitute a request by the carrier for authority to carry all the passengers to the UK. Carriers will receive an automated per-passenger response to their check-in systems to confirm whether they have the authority to carry them to the UK or not.

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<sup>3</sup> *Islamist Terrorism: The British Connections* by R. Simcox, H. Stuart H. Ahmed, The Centre for Social Cohesion (2010). The Exeter bombing and Ibrahim suicide vests plots have been added to the source list, although they are not generally considered 'major' plots.

<sup>4</sup> Data taken from the National Risk Assessment. No social cost for anxiety or stress has been included, as this is extremely difficult to quantify or monetise.

<sup>5</sup> This has been calculated by assuming an attack occurs in the middle of the decade, and discounting at the 3.5% social time preference rate.

## E. Appraisal (Costs and Benefits)

### General Assumptions and Data

- The costs and benefits of the various policy options are assumed to fall on all carriers equally, regardless of the carrier's nationality or volume of journeys
- The manual system is assumed to be 99% effective, and the automated system 100% effective
- The rate of individuals assessed to pose a terrorist threat is estimated to be around 2.25 individuals per annum
- The number of false positives is assumed to be equal to the number of individuals correctly identified (i.e. 2.25 individuals per annum)
- ASHE data for hourly wages of administrative staff are used to calculate the cost to carriers
- Department for Transport estimates for the value of working time spent travelling are used to calculate the time cost to individuals of being falsely delayed
- ONS estimates of the average spend per visit abroad, per day are used to calculate the food and subsistence costs of individuals of being falsely delayed
- International Passenger Survey and Civil Aviation Authority data on the cost of an average flight are used to calculate the benefit to carriers of avoiding removal costs.

### Option 1 – Do Nothing

Under Option 1, the existing costs and benefits prevail; no changes to the value of these costs and benefits, or any additional costs and benefits, are expected. Carriers currently pay detention and removal costs for all individuals denied entry at the UK border.

### Option 2 – Manual alerts sent through e-Borders underpinned by Authority to Carry legislation

#### **Cost to Carriers**

The largest cost of this policy is to the carrier industry. Carriers providing Advance Passenger Information to e-Borders will be required to put in place 24-hour points of contact able to receive refusals of Authority to Carry in English, acknowledge receipt and give effect to that refusal. This is expected to involve arranging a phone line and a contact email mailbox, at a cost which is assumed to be negligible to the carrier. These communication lines will be manned 24 hours a day by an individual at a cost of £110,000 per annum to each carrier. This is calculated by multiplying the number of hours in a year by the average hourly labour cost of admin staff<sup>6</sup>. Approximately five members of full-time staff would need to be employed to fill this position (accounting for shift rostering). The volume of communication over a year is expected to be very low, meaning that in actuality carriers may allocate this task to existing staff - in this case, the *financial* cost of the option is likely to be extremely low. However, as a conservative estimate, it is assumed that the staff manning the phone line will not be able to perform any other tasks simultaneously, and thus the economic cost considers the full 24/7 labour cost. There are currently 14 UK carriers providing data to e-Borders, giving a total cost of £1.54m per annum to the UK carrier industry. The action on the alerts received is assumed to be absorbed by the existing carrier staff.

Under this option, carriers will not have to pay the detention and removal costs that they would otherwise need to meet when such individuals are refused entry or admission to the UK. The maximum possible cost of detention is currently set at £1862.78 per individual, and the average cost of a return-leg flight is £275.30.<sup>7</sup> The number of individuals correctly refused boarding following a refusal of Authority to Carry under this option is assumed to be 2.2275 per annum. This is based on an annual rate of 2.25 people, and a 99% success rate of the manual system (i.e. 1% of the 2.25 individuals will be missed. These individuals would be stopped at the border and then need to be detained and removed, as under option 1). As is standard for a UK Impact Assessment, only net gains and losses to the UK are considered. Therefore, the total cost of detention and removal is multiplied by the effective

<sup>6</sup> Source: Annual Survey of Hours and Earnings 2010. Gross median hourly wage for admin staff (£9.66) is used, multiplied by 1.3 to account for non-wage labour costs, giving an hourly cost of £12.56.

<sup>7</sup> Data collected by International Passenger Survey and Civil Aviation Authority, based on the average price for a single flight from the UK to 17 destinations. 2008 prices have been updated to 2010 prices using National Accounts figures from ONS

rate of 2.2275, and multiplied by the fraction of all carriers providing data to e-Borders that are UK companies (14/122). This assumes that the identification of individuals posing a terrorist threat are equally likely to occur on any carrier, regardless of nationality. This brings an anticipated cost saving of £547 per annum to carriers.

### **Cost to Individuals**

A cost to individuals may arise if they are subject to a mistaken identity and incorrectly prevented from travelling to the UK. This results in the individual being delayed in their travel, and so has been costed as a 'time cost' and a food/accommodation cost. For the purpose of this document, it is assumed that the number of these 'false positives' is equal to the number of correctly identified cases. Further analysis will be conducted in due course and as part of the Final Impact Assessment, when that figure is expected to be lowered. This means that up to 2.2275 people per year may be falsely prevented from boarding, resulting in a time delay of an estimated maximum of twenty-four hours before their carrier is given authority-to-carry and they can successfully board. Although these people will be foreign nationals and not UK citizens, their time and inconvenience has been accounted for, since presumably they are coming to the UK for business or tourism reasons, and their delay will therefore result in a net loss to the UK. The value of time used is the Department for Transport value of work time spent travelling<sup>8</sup>. This is multiplied by the number of false positives per annum, and by a 24 hour delay period. A daily cost of £54 for food and accommodation is also included. This comes from the ONS Travel Trends Report 2008, which gives details about average daily spend of a UK citizen on holiday abroad<sup>9</sup>. The cost per individual delayed is calculated to be £711.45. Multiplying this by the expected number of people falsely prevented from travelling gives a total annual cost of £1,585.

The development of the scheme will take into account the high importance of minimising this effect, and procedures will be put into place to prevent an individual from being subject to repeated instances of this. It is currently expected the instances of this occurring will be low.

### **Cost to Government**

Under this option, there is no cost to the UK Government. Failure to comply with a refusal of 'authority-to-carry' without reasonable excuse will result in a sanction payment of £10,000 from the carrier to the UK Government. However, the Home Office is committed to supporting carriers so that they may meet their obligations and will monitor the scheme operation to provide advice and resolve issues wherever possible. To be conservative in this assessment, it is assumed for all such cases a sanction would be applied. If this is a UK carrier, then this transaction is a transfer (and there is no net loss or gain to the UK), but if it is a foreign carrier, then this is a source of revenue for the UK. It has been estimated that 1% of refusals of Authority to Carry are not prevented from boarding by carriers under this option. This means that 0.225 individuals are erroneously permitted to travel each year. Multiplying by the £10,000 sanction and by the proportion of carriers that are foreign gives an estimated gain to the UK of £199 per annum.

It is assumed that enforcement of the legislation will be administered by existing UKBA staff, who are already administer existent Carriers' Liability charges.

### **Total Cost**

The total cost of this option is **£1.54m** per annum, giving a Net Present Value over ten years of negative **£13.25m**. This includes the cost to carriers of manning a 24/7 phone line, the cost to 'false positives' of being delayed during travel, the benefit to carriers from lower detention and removal costs, and the benefit to the UK Government of sanction payments made by foreign carriers. This figure does **not** include any benefit from the reduced probability of a terrorist attack, which cannot be quantified. However, a break-even analysis of the benefits case is discussed below.

### **Benefits**

Given the cost of the policy and estimated current cost of terrorist attacks, we can estimate the reduction in probability of attack that would be necessary in order for the policy to break even.

<sup>8</sup> DfT Guidance: The value of working time spent travelling, average for all transport types. 2002 prices have been updated to 2011 prices using DfT guidance on value of time growth rates.

<sup>9</sup> ONS Travel Trends 2008: [http://www.statistics.gov.uk/downloads/theme\\_transport/Travel\\_Trends\\_2008.pdf](http://www.statistics.gov.uk/downloads/theme_transport/Travel_Trends_2008.pdf) . Table 3.06: Average spend per visit abroad, per day. Average across all regions, all purposes of visit. 2008 prices updated to 2010 prices using National Accounts figures from ONS

Under the baseline option, any such passenger who attempts to enter the UK will be stopped at the UK border and removed. The benefit of this option is that it reduces the possibility that an individual could commence a journey to the UK and execute an attack *before reaching the UK border*. The benefit only operates in the case that the individual would be identified as posing a terrorist threat and prevented from travelling to the UK following pre-departure checks<sup>10</sup>. This option is presumed to have a 99% success rate – this implies that 1% of individuals are not prevented from boarding, and thus may pose a terrorist threat until they are stopped and detained at the UK border.

Under this option, over a ten-year period an estimated 22.275 people would be prevented from travelling to the UK. Under the baseline option, these people may have been allowed to board<sup>11</sup> and may then have attempted a terrorist attack.

Of the ten major plots described above, six reached execution stage and the other four were foiled by the police prior to intervention. This policy is not expected to affect the probability that an attack reaches execution stage, since it only intervenes at the point where the individual travels to the UK. The expected benefit of the policy is to increase the probability that an attack is foiled by intervention, and therefore decrease the probability that an attack is successful. Using the NPC of this policy option (£13.25m), we can see that in order for the policy to break-even (i.e. to be just worthwhile) the policy would need to result in an increase in the probability that an attack is prevented at execution stage from 0.167 to between 0.168-0.169. Since the cost of this policy is very low relative to the baseline spend on terrorist attacks (the policy costs around 1-2% of the cost of terrorist attacks per decade), only a very small lowering in the probability of an attack being successful would be necessary in order to break-even. On average, the total number of successful attacks would need to decrease from 1 per decade to 0.984-0.991 per decade in order that the policy breaks even. This change would be almost imperceptible – it is equivalent to one attack fewer in several hundred years, assuming that the policy were to run for this length of time. This is not a measure of the benefit of the policy, merely an indication of the scale of benefits that would be necessary in order to break-even.

These figures are based on data about all major terrorist plots to the UK, rather than using only those plots aimed at journeys in transit to the UK. The calculation here does not take into account the probability that a plane is the target of an attack – if all plots over the next ten years were aimed at a plane, then it would be likely that the increased prevention rate required to break-even would be achieved by the policy. However, if there were no attempted attacks of this type, it would not be possible for this policy to achieve the required increase in the prevention rate. There is no data available to investigate this claim further.

### **Option 3 – Automated Authority to Carry underpinned by Authority to Carry legislation**

#### ***Cost to Carriers***

This is a more technology intensive option, comprising the use of e-Borders to identify individuals of interest and automated alerts to the passenger's carrier. The phone line and email inbox detailed in Option 2 will not be required – instead, an automated system is used. The cost of this system is currently unknown, and estimates may be sought from industry during the consultation stage. As an initial conservative estimate, the cost of e-Borders to industry is considered. The Regulatory Impact Assessment of e-Borders undertaken in 2007 estimated an annual cost of £202m to industry. This is likely to be much larger than the cost of implementing automated Authority to Carry, and therefore we consider 50% of this cost, £101m per annum, to be a reasonable estimate.

Unlike the manual system (which assumed a 99% success rate), the automated system is presumed to be 100% successful. This means that for every positive match the passenger's carrier is refused authority-to-carry and the passenger is successfully prevented from boarding. On average, 2.25 individuals per year are therefore prevented from posing a threat to the UK and its interests whilst in transit to the UK, saving the UK carrier industry detention and removal costs of £552.05 per annum (this

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<sup>10</sup> This does not consider the effects of physical port security screening measures in place in the UK and ports that embark to the UK which are complementary to but not within the remit of this regulation, which aims to identify known individuals believed to pose a threat in advance of travelling

<sup>11</sup> As above: This does not consider the effects of physical port security screening measures in place in the UK and ports that embark to the UK

is based on the average detention and removal costs, as described above, multiplied by a rate of 2.25 and the fraction of carriers that are UK companies).

### ***Cost to Individuals***

The slightly higher rate of individuals identified as a terrorist threat under this option also results in a slightly higher false positive rate. On average, 2.25 people per annum are falsely prevented from travelling under this option. Based on an average delay of 24 hours, using estimates for the value of public time and expenditure abroad as described above, these false positives result in a cost to individuals of £1601 per annum.

### ***Cost to Government***

Under this option, it is assumed that carriers always succeed in preventing individuals identified as a terrorist threat from boarding the vessel. In this case, no sanction payments to the UK Government can be expected.

There is a large additional cost to Government of implementing the IT system. This cost is unknown, and quotes are being sought as part of the consultation stage. As a preliminary estimate, the cost of the US ESTA system is considered. This is estimated to cost the US government \$300m per annum. This is likely to be a great deal larger than the cost of implementing Authority to Carry – again 50% of the cost (£95,152,500) is used as a more reasonable estimate. This estimate may be revised in due course on receipt of estimates from IT service providers.

As for option 2, it is assumed that enforcement will be administered by existing UKBA staff.

### ***Total Cost***

The total cost of this policy is **£196m** per annum, giving a Net Present Value of negative **£1,688m**. The NPV is a great deal lower than for Option 2 – this is because the automated system is much more expensive to implement, and the benefits that arise (as a result of the higher level of accuracy) can not be quantified.

### ***Benefits***

As for Option 2, the benefit of this option is that an individual is prevented from travelling to the UK, and therefore cannot execute an attack in passage. Again, this benefit only arises if the individual is successfully prevented from boarding following the completion of pre-departure checks on the watchlist and would not otherwise have been stopped by port security. Since the success rate of this option is 100%, every individuals identified as posing a terrorist threat is prevented from boarding. Over a ten-year period, an estimated 22.5 such individuals would be prevented from boarding. This is higher than under options 1 and 2, meaning that we expect a higher level of benefits from this option.

Using the preliminary assumptions on the cost to the government and to industry of this option the cost of this policy is actually higher than the current average cost of terrorist attacks, and therefore does not break even. This is under the assumption that the current attack-rate and cost of attacks remains constant. Considering the upper-bound cost of terrorist attacks, the cost of the policy over ten years would need to decrease by £259m (85%) in order that the expenditure on the policy is equal to the current expenditure on terrorist attacks. However, at the lower-bound cost of terrorist attacks, the cost of the policy would need to decrease by £861m (49%) in order to reach this point. This option will be re-assessed once quotes for systems development have been obtained – it is possible that a significantly lower estimate of costs will be obtained, in which case the option should be reconsidered in terms of its value-for-money. It is important to note that the cost and benefits assumptions taken will be revised in future versions and in future assessments upon receipt of improved estimates. Further, there may be much wider immigration, crime and counter-terrorism benefits to the UK and benefits to industry that could be realised through an automated Authority to Carry system that have not been included in the scope of consideration here.

## **F. Risks**

### Risks and assumptions

For all policy options, the assumptions listed below have been made.

1. The policy has no deterrence or displacement effect. This is a simplifying assumption. In reality, stricter border controls may well reduce the number of attempted attacks, and therefore the number of attacks reaching execution stage as *well* as the number of attacks prevented after reaching execution stage.
2. No wider social costs are accounted for in the cost of terrorist attacks. This suggests that the cost-effectiveness of the policy may be underestimated.
3. The costs and benefits are assumed to fall on all carriers equally, regardless of nationality or volume of journeys. The largest cost of the policy (that of manning a 24-hour phone line and email address) is not sensitive to this assumption, since all carriers must operate the phone line, regardless of the volume of journeys they operate.
4. The costs of providing a telephone and email point of contact are assumed to be negligible. The cost of preventing a person whose carrier has been refused authority-to-carry is assumed to be absorbed by existing staff. It is assumed that new staff will need to be hired in order to man the 24-hour phone line. In reality, it may be the case that existing staff could absorb this role, in particular since the number of calls they are expected to take is likely to be very low.

Key uncertainties are around:

The cost of implementing option 3, since estimates for the the necessary IT infrastructure for industry cannot be obtained until consultation, and estimates of costs to government will also be obtained in due course.

1. The success rate of the manual system (assumed to be 99%). This translation of success rate to benefits cannot be made, since benefits have not been quantified.
2. The number of individuals identified as a terrorist threat and the number of 'false positives' incorrectly identified. The costs are sensitive to changes in the number of false positives, however changes in this assumption do not greatly affect the estimated total cost . For example, increasing the false positive rate by a factor of ten results in total costs increasing by just 1%. Benefits are very sensitive to assumptions about the system's success rate and the number of individuals identified as a terrorist threat. Since benefits cannot be quantified, sensitivity analysis around this cannot be performed.

## G. Enforcement

Consultation across government has been conducted, with departments to absorb any additional administrative burden within existing resourcing arrangements.

## H. Summary and Recommendations

The table below outlines the costs and benefits of the proposed changes.

<b>Option</b>	<b>Costs</b>	<b>Benefits</b>
<b>2</b>	£1.54m /year	Benefits have not been quantified
	All costs have been quantified	The estimated rate of individuals who may be identified as posing a terrorist threat travelling to the UK would reduce to 0.25 per decade. In order to break-even, the policy must result in the probability that an attack is prevented at execution stage increasing from 0.167 in the baseline scenario to 0.168-0.169.

<b>3</b>	£196m /year	Benefits have not been quantified
	All costs have been quantified	The estimated rate of individuals who may be identified as posing a terrorist threat travelling to the UK would reduce to zero. This policy is more expensive than the current estimated cost of terrorist attacks. Therefore, with these assumptions this option cannot represent value for money.
Source:		

Option 3 is discarded on the grounds that, based on the assumptions utilised here, it does not represent value for money. This will be reassessed upon receipt of improved cost estimates. Option 2 is the preferred option, since it is likely that the benefits required to breakeven would be achieved through identifying individuals as posing a terrorist threat and preventing them from travelling to the UK following pre-departure checks

## I. Implementation

A targeted consultation will take place involving key industry partners and other stakeholder groups, which will inform the development of the scheme. On completion a Statutory instrument will be developed and laid in Parliament with a view to coming into force in November 2011.

## J. Monitoring and Evaluation

Management Information will be collected by UK Border Agency to inform future Impact Assessments that review this policy. The impact will be reviewed formally in 2015 and may also be formally reviewed as part of any reviewed Impact Assessment on e-Borders that takes place in the interim.

# Annexes

Annex 1 should be used to set out the Post Implementation Review Plan as detailed below. Further annexes may be added where the Specific Impact Tests yield information relevant to an overall understanding of policy options.

## Annex 1: Post Implementation Review (PIR) Plan

A PIR should be undertaken, usually three to five years after implementation of the policy, but exceptionally a longer period may be more appropriate. A PIR should examine the extent to which the implemented regulations have achieved their objectives, assess their costs and benefits and identify whether they are having any unintended consequences. Please set out the PIR Plan as detailed below. If there is no plan to do a PIR please provide reasons below.

<b>Basis of the review:</b> The basis of review will be a matter of intended policy rather than a statutory or political commitment.
<b>Review objective:</b> The review is intended to assess to what extent the regulation is tackling the problem of concern and highlight any areas of change or improvement
<b>Review approach and rationale:</b> Review of monitoring data and scan of stakeholder views
<b>Baseline:</b> Measurement is against the number of individuals subject to pre-departure checks that are detected through the provision of Advance Passenger Information, and what proportion of these are successfully prevented from travelling to the UK.
<b>Success criteria:</b> As per baseline
<b>Monitoring information arrangements:</b> Management Information to be collected internally in line with operating procedures
<b>Reasons for not planning a PIR:</b> Not applicable

## **Annex 2: Human Rights Impact Assessment**

Consideration has been given to the impact of this legislation on the UK's human rights obligations. The policy will be developed so as to fully consider the engagement of these rights and an assessment will be made in the Final Impact Assessment for the policy.