

Summary: Intervention & Options

Department /Agency: Safety Regulation Group / Civil Aviation Authority	Title: Impact Assessment of Proposal to amend the Air Navigation Order 2009 Articles 96A, 247 and 255 and Schedule 8	
Stage: Final Proposal	Version: 2	Date: 12 March 2010
Related Publications: Air Navigation Order (ANO) 2009		

Available to view or download at:

<http://www.caa.co.uk/consultations>

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

There are extended areas of the UK Continental Shelf (UKCS) airspace used by helicopters in support of oil and gas exploitation, and other operations, that are not covered adequately by radar or radio surveillance. Consequently, there is a reduction in the availability of traffic avoidance and flight-following information and a delayed alerting service should an aircraft become overdue. Over recent years, several airproxes, particularly with military jets operating in these areas, have highlighted the limitations of the existing surveillance system. Improvements in surveillance and communications are becoming available but unless operators are mandated to use them the safety benefits will not be realised.

What are the policy objectives and the intended effects?

The proposed amendments will require an operator of a helicopter registered in the UK conducting offshore public transport flights anywhere in the world, and any helicopter (wherever registered), conducting offshore public transport flights which commence in the UK or from an offshore installation, to satisfy himself that at the intended cruising level the aircraft will be under a flight-following service and can communicate with the appropriate Air Traffic Control Unit (ATCU) or Flight Information Service Unit (FISU). With these proposals, flight safety on offshore flights in the UK and in UK registered helicopters, particularly in the UKCS airspace, will be significantly enhanced.

What policy options have been considered? Please justify any preferred option.

1. Do nothing. There would have been no improvement in safety within the offshore environment.
2. Reclassify appropriate UKCS airspace to ensure that aircraft operating within this airspace communicate with and are provided with a flight-following service by air traffic services.
3. Amend the ANO to require operators to satisfy themselves that any helicopter operated by them in the prescribed circumstances can maintain communications with the appropriate ATCU or FISU and achieve flight-following.

Option 3 is preferred to improve safety without imposing consequential restrictions and costs.

When will the policy be reviewed to establish the actual costs and benefits and the achievement of the desired effects?

The Civil Aviation Authority (CAA) will assess the effect of this amendment as part of its continuing oversight of aircraft operations and will consult further on any proposals that would modify or supersede the requirements set out in this Impact Assessment.

Ministerial Sign-off For final proposal/implementation stage Impact Assessments:

I have read the Impact Assessment and I am satisfied that, given the available evidence, it represents a reasonable view of the likely costs, benefits and impact of the leading options

Signed by the responsible Minister:

.....Date:

Summary: Analysis & Evidence

Policy Option: 3

Description: Amend the ANO Articles 96A and 255 and Schedule 8

COSTS	ANNUAL COSTS		Description and scale of key monetised costs by 'main affected groups' For those operators utilising any form of flight-following other than Multilateration, costs will vary according to the system and equipment chosen and the fitting and support arrangements. Estimated costs have been added for example systems and for a representative number of 30 aircraft being modified and operated offshore.
	One-off (Transition)	Yrs	
	£ 2M	1	
	Average Annual Cost (excluding one-off)		
	£ 60k	10	Total Cost (PV) £ 2.5M
Other key non-monetised costs by 'main affected groups' None identified.			

BENEFITS	ANNUAL BENEFITS		Description and scale of key monetised benefits by 'main affected groups'
	One-off	Yrs	
	£ 0		
	Average Annual Benefit (excluding one-off)		
	£ 0		Total Benefit (PV) £ 0
Other key non-monetised benefits by 'main affected groups' By requiring operators to ensure that they utilise flight-following and two-way communications, the safety of offshore helicopter operations would be improved and there would be a reduction in the risk of a mid-air collision or similar mishap and thus not incurring the associated disaster event costs.			

Key Assumptions/Sensitivities/Risks

It is assumed that most operators conducting offshore operations in the North Sea areas will utilise Multilateration for flight-following. Such operations elsewhere will require an alternative system which will most likely cause additional costs. Such additional costs might constrain investment or operation. The risk of an offshore operation major disaster remains low. The total cost figure is an estimate and actual costs may be higher or lower depending on the systems and equipment used.

Price Base Year 2008	Time Period Years 10	Net Benefit Range (NPV) £ (See Above)	NET BENEFIT (NPV Best estimate) £ -2.5M
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What is the geographic coverage of the policy/option?	UK			
On what date will the policy be implemented?	2010			
Which organisation(s) will enforce the policy?	UK CAA			
What is the total annual cost of enforcement for these organisations?	£ Negligible			
Does enforcement comply with Hampton principles?	Yes			
Will implementation go beyond minimum EU requirements?	No			
What is the value of the proposed offsetting measure per year?	£ N/A			
What is the value of changes in greenhouse gas emissions?	£ N/A			
Will the proposal have a significant impact on competition?	No			
Annual cost (£-£) per organisation (excluding one-off)	Micro N/A	Small 7k	Medium 15k	Large N/A
Are any of these organisations exempt?	No	No	N/A	N/A

Impact on Admin Burdens Baseline (2005 Prices)		(Increase - Decrease)	
Increase of £ Nil	Decrease of £ Nil	Net Impact	£ Nil

Key: Annual costs and benefits: Constant Prices (Net) Present Value

Evidence Base (for summary sheets)

PROPOSAL TO ADD ARTICLE 96A AND AMEND ARTICLES 247 AND 255 AND SCHEDULE 8 OF THE AIR NAVIGATION ORDER 2009 FOR THE PURPOSE OF INTRODUCING AN ADDITIONAL RESPONSIBILITY FOR OPERATORS OF HELICOPTERS CONDUCTING OFFSHORE FLIGHTS, INCLUDING THE SUPPORT OF OIL AND GAS EXPLOITATION WITHIN THE UNITED KINGDOM CONTINENTAL SHELF AIRSPACE, NEW DEFINITIONS AND AN ADDITIONAL REQUIREMENT TO BE INCLUDED IN THE OPERATIONS MANUAL

1 Title of Proposal

- 1.1 Impact Assessment (IA) for the inclusion of Article 96A and amendment of Articles 247 and 255 and Schedule 8 of the Air Navigation Order (ANO) 2009.

2 Purpose and Intended Effect

2.1 Objectives

- 2.1.1 The amendment to the ANO 2009 to add Article 96A will require operators of helicopters conducting offshore flights for the purpose of public transport to satisfy themselves that the aircraft can maintain flight-following and communications with the appropriate ATCU or FISU throughout the flight. **The CAA proposes to amend the ANO 2009 by adding Article 96A accordingly.**
- 2.1.2 Article 247 (Extra-territorial effect of the Order) requires slight amendment to align with the Civil Aviation Act 1982 c.16, as amended by section 101 of the Energy Act 2004 c.20 where the term Renewable Energy Installation is defined. **The CAA proposes to amend the ANO 2009 Article 247 accordingly.**
- 2.1.3 The terms “offshore flight” and “flight-following system” referred to in the proposed Article 96A require defining. **The CAA proposes to amend the ANO 2009 Article 255 to include these definitions.**
- 2.1.4 The proposed new Article 96A requires the operator to have information and instructions in his operations manual relating to overdue action in the case of an offshore flight. **The CAA proposes to amend the ANO 2009 Schedule 8 to reflect this requirement.**

2.2 Background

- 2.2.1 There are extended areas of operations, including those on the UKCS airspace, used by helicopters in support of oil and gas exploitation that are not covered adequately by radar or radio surveillance. Consequently, there is a reduction in the availability of traffic avoidance and flight-following information and a delayed alerting service. Over recent years, several airproxes, particularly with military jets operating in these areas, have highlighted the limitations of the existing surveillance system. Additionally, there is no comprehensive process in place to ensure that helicopters operating in such conditions are provided with an alerting service should they become overdue.
- 2.2.2 These operations are largely conducted along defined route structures located in Class G airspace. Flight in such airspace does not require aircraft to communicate their presence to agencies or other traffic and therefore there is no mandate on operators to ensure that at all times their aircraft can be contactable through recognised communications. Despite being equipped with Secondary Surveillance Radar (SSR) transponders, as required by the ANO, these helicopters do not always benefit from flight-following and aircraft deconfliction due to the lack of radar coverage.
- 2.2.3 Following a joint CAA/Industry review to address these shortcomings, it was unanimously recommended that the use of a ‘flight-following’ and two-way radiotelephony (RTF) communication service should be made mandatory for operators of offshore helicopters.

- 2.2.4 In an effort to improve RTF coverage on the UKCS, the current Very High Frequency (VHF) rebroadcast system has been updated to provide an enhanced service capable of achieving VHF radio coverage throughout the operating sectors down to a height of 1,000 ft and in some areas as low as 500 ft. To address the lack of radar coverage, NATS has installed a system called 'Multilateration', which works with SSR by interrogating aircraft transponders remotely and relaying the information to the air traffic service unit located in Aberdeen. Multilateration can thereby provide an effective secondary radar service that can include all transponding traffic, civil and military. This system utilises up to 16 receiver/transmitter stations located on a number of selected offshore installations, enabling the ATCU to 'see' transponding aircraft operating at low levels beyond the range of conventional radar and across virtually the whole of the current North Sea offshore operating areas within the UKCS airspace. Oil and Gas UK is managing these projects and the UK offshore oil and gas companies are funding both systems.
- 2.2.5 In addition, satellite communication systems (SATCOM) are now becoming readily available and have already been introduced with the advent of new types of helicopter onto Search and Rescue duties within the UK.

2.3 Rationale for Government Intervention

- 2.3.1 Radar surveillance of helicopters operating in North Sea and North Atlantic Airspace to the west of the Shetland Isles is limited due to the range from the radar and operating altitudes of the aircraft. In recent years several airproxes, particularly with military jets, have occurred in these areas, highlighting the limitations of the existing surveillance system. Furthermore, there are significant areas where VHF radio communications coverage is also unavailable resulting in possible delayed alerts to occurrences such as a helicopter ditching.
- 2.3.2 Improvements in the coverage of both SSR and radio facilities are being implemented in the operating areas but unless operators are required to use them there will be no significant improvement in safety.
- 2.3.3 If the requirements for flight-following and two-way communications were not mandated, new exploitation and exploration areas could be introduced without any radio or radar coverage thereby negating the safety benefits of such systems.
- 2.3.4 With these proposals, flight safety on flights carrying offshore oil and gas industry workers in UK registered helicopters, particularly in the UKCS airspace, will be significantly enhanced.

3 Consultation

3.1 Within Government

- 3.1.1 The Department for Transport and departments of the CAA have been consulted on this proposal.

3.2 Public Consultation

- 3.2.1 All UK helicopter Air Operator Certificate holders flying on offshore flights for the purpose of public transport, and in particular those in support of oil and gas exploration within the UKCS airspace, have been consulted. The Letter of Consultation (L of C) and Regulatory Impact Assessment (RIA) - FODCOM 25/2007 - were published on the CAA website.
- 3.2.2 Comments were received from four organisations as listed below:

- | | | |
|-----|--|------------------------|
| (1) | British Helicopter Advisory Board (BHAB) | Industry association |
| (2) | Caledonian Airborne Systems Ltd | Equipment manufacturer |
| (3) | Internal CAA comment | Regulator |
| (4) | NATS | ATM provider |

- 3.2.3 In general, the commenters were in support of the proposal. Minor adjustments to the text of the IA and proposal were suggested and these suggestions have been accepted and the text amended accordingly without substantially altering the content or intent of the proposal.
- 3.2.4 In order to ensure that the geographic scope of the proposal was fully understood by those operators likely to be affected, a supplementary question to this effect was posed through the BHAB asking for any additional comment. No further comments have been received and it is considered that those affected are cognisant of the intent and purpose of the proposal.
- 3.2.5 A summary of the comments received and the CAA's responses to them is given at Annex 1.

4 Options

4.1 Three options were considered:

- Option 1. Do nothing. This would have meant that operators could avoid taking advantage of the improvements in flight-following and two-way communications afforded by Multilateration or SATCOM, and VHF rebroadcast stations. As a consequence, there would have been no improvement in safety within the offshore environment; airproxes would undoubtedly have continued and helicopters would have remained unable to communicate over large areas of a hostile environment. Furthermore, in new areas of oil and gas exploitation, there would have been no requirement to establish satisfactory flight-following and communication procedures.
- Option 2. Reclassify appropriate UKCS airspace as Class E, or higher, to ensure that aircraft operating within this airspace communicate with and are provided with a flight-following service by air traffic services. However, extensive radar and communication services would need to have been provided to ensure appropriate service levels. Furthermore, it would have had a significant impact upon other users of the airspace, in particular the military, which would then be severely restricted by the lack of useable Class G airspace. Such a move would also not have covered other areas where UK registered aircraft might have been conducting offshore flight and where the classification of the airspace might not have provided for the requirements of communication and flight-following.
- Option 3. Amend the ANO to reflect the changes specified under paragraph 2.1. This would require operators to satisfy themselves that any helicopter operated by them on offshore flights for the purpose of public transport within the UKCS airspace and elsewhere can maintain communications with the appropriate ATCU or FISU and achieve flight-following, thereby improving flight safety within the offshore environment.

Option 3 is the preferred option.

5 Costs and Benefits

5.1 Sectors and Groups Affected

- 5.1.1 The proposed amendment to the ANO will affect all operators of public transport helicopters engaged in offshore activities.

5.2 Benefits

- Option 1. By not requiring operators to take advantage of flight-following and two-way communications there may have been a small saving in workload for the pilot. There would have been no improvement in safety or reduction in the risk of an airprox.
- Option 2. Reclassifying the airspace to a higher level would have required all users of such airspace to comply with more stringent flight rules. This would have standardised

the level of service being provided but would have had wider implications for users other than offshore helicopters and may not have been practical or economically viable.

- Option 3. By requiring operators to ensure that they utilise flight-following and two-way communications, the safety of offshore helicopter operations would be improved and there would be a reduction in the risk of an airprox.

5.3 Costs

5.3.1 Compliance Costs

- Option 1. There would have been no compliance costs involved with this option.
- Option 2. The reclassification of the airspace to a higher level would have required additional investment to update the air traffic control service functions, which in turn would have to be passed on to the operator and users through standard en-route navigation charges. Any changes of airspace classification would have been subject to the Airspace Classification Process laid down in *CAP 725 Airspace Change Process Guidance Document*. The cost to upgrade and reclassify the airspace in equipment, administration and publicity terms would have been considerable.
- Option 3. All operators of public transport helicopters are already required by Schedule 5 of the ANO 2009 to have SSR and VHF radios. Therefore, for operators utilising Multilateration, there are no additional costs to the operators associated with the fitting of equipment, but there would be a small en-route navigation charge increase associated with this proposal which would be passed on to the customer. For those operators utilising any other form of flight-following, costs would vary according to the system and equipment chosen.

5.3.2 Costs for a Typical Business

The capital outlay for the installation of equipment required for Multilateration and VHF rebroadcast stations will be covered by NATS and the oil companies through Oil and Gas UK. These costs will eventually be recovered through standard en-route navigation charges and the magnitude is yet to be determined. However, Oil and Gas UK has already approved funding for this project and is actively managing it.

If operators utilise a flight-following system other than Multilateration, then installation and running costs will be incurred. These will clearly vary according to the nature of the system selected; however, the cost of equipment used by helicopter operators in the Gulf of Mexico for a similar purpose is as follows:

- a). Aviation Asset Management kit - prices ranging from £4,000 to £10,000 per aircraft dependent upon the level and sophistication of support required.
- b). A Service Plan - where costs vary depending on numbers of aircraft to be fitted. Typically, a Service Plan is based on units (which equate to a position update). An example Service Plan offered by a service provider offers 3000 units at a cost of £145 (US\$249) per month. This would provide cover for one aircraft flying 100 hours per month producing position updates every two minutes.

5.3.3 Summary of Costs and Benefits for Amending the ANO 2009

A summary of costs and benefits for amending the ANO 2009 is contained in the Table at Annex 2.

6 Small Firms Impact Test

- 6.1 The proposal imposes a requirement on the operators to enhance their operating procedures by requiring them to satisfy themselves that they can maintain communications throughout an offshore flight. Funding to install equipment to achieve this is being provided by Oil and Gas UK, therefore this proposal will have no immediate cost to operators and no impact on smaller businesses. Any change in en-route charges has to be determined at a later date but will be offset by the improvement in safety in offshore operations and is voluntarily accepted by Oil and Gas UK already.

7 Competition Assessment

- 7.1 With regards to competition, it is considered that the proposed amendment to the ANO 2009 will not:
- a). Directly limit the number or range of suppliers.
 - b). Indirectly limit the number or range of suppliers.
 - c). Limit the ability of suppliers to compete.
 - d). Reduce suppliers' incentives to compete vigorously.

8 Environmental, Rural and Health

- 8.1 The change will have little if any environmental, carbon, rural or health impact as the nature of the operations concerned will continue to be conducted by the same helicopters and in a similar fashion.

9 Social

- 9.1 There are not expected to be any social effects caused by this change covering: human rights, race, gender and disability equality.

10 Enforcement and Sanctions and Monitoring

- 10.1 The mechanism for enforcement through the ANO already exists, and no additional resources will be required in this regard. The CAA's Safety Regulation Group, as part of its safety oversight function, will monitor and review the effectiveness of the legislation.

11 Implementation and Delivery Plan

- 11.1 The changes to UK legislation implemented by this IA have been anticipated for several years by UK Industry who have been briefed and consulted with. The VHF communications and Multilateration infrastructure intended for the UKCS area has been installed and is expected to be in full operation by the end of 2010. Affected operators are likely to be compliant with the requirements when the ANO is amended or have in place alternative arrangements approved by the CAA.

12 Post-Implementation Review

- 12.1 The CAA will assess the effect of this amendment as part of its continuing oversight of aircraft operations. Should further amendments be required, the CAA will consult on proposals that would modify or supersede the requirements set out in this IA.

13 European Legislation

- 13.1 This proposal was initiated before the European Commission and the European Aviation Safety Agency (EASA) gained exclusive legal competence in relation to rulemaking for aviation operations. It is not known whether the requirements will be consistent with the Implementing Rules for the Basic Regulation (EC) No. 216/2008 which are due to come into force by 2012.

However, in view of the significant safety benefits of flight-following it is intended to proceed with the amendment. A proposal, based on this amendment, will be passed to EASA by the CAA for consideration within the future rulemaking process.

14 Summary and Recommendations

- 14.1 Option 1 was rejected as to do nothing would have seen no improvement in safety within the offshore environment; airproxes would undoubtedly have continued and helicopters would have remained unable to communicate over large areas of a hostile environment. Furthermore, in new areas of oil and gas exploitation, there would have been no requirement to establish satisfactory flight-following and communication procedures. Option 2 provided a means of requiring the necessary communications and flight-following by upgrading the airspace over the UKCS, but this would not have covered all areas of UK registered aircraft operations. Such a change would have required a significant investment in air traffic control service functions to provide the correct level of service with the concomitant cost to users in service charges. Furthermore, it would have had a significant impact upon other users of the airspace, in particular the military, which would then be severely restricted by the lack of useable Class G airspace.
- 14.2 The CAA believes that Option 3 will provide the most practical method of flight-following, as well as the most cost-effective, and is minded to recommend to the Secretary of State for Transport that the ANO 2009 be amended at Articles 96A, 247 and 255 and Schedule 8 as detailed in Annex 3.

Specific Impact Tests: Checklist

Type of testing undertaken	<i>Results in Evidence Base?</i>	<i>Results annexed?</i>
Competition Assessment	Yes	No
Small Firms Impact Test	Yes	No
Legal Aid	No	No
Sustainable Development	No	No
Carbon Assessment	Yes	No
Other Environment	Yes	No
Health Impact Assessment	Yes	No
Race Equality	Yes	No
Disability Equality	Yes	No
Gender Equality	Yes	No
Human Rights	Yes	No
Rural Proofing	Yes	No

Annexes

Annex 1

Summary of Comments and Responses (Comments refer to the ANO 2005)

Commenter	Comments	Responses
BHAB	The British Helicopter Advisory Board strongly supports the proposal contained in Option Three and is content that the Air Navigation Order should be amended as proposed.	Noted.
Caledonian Airborne Systems Ltd	Offered information regarding systems for flight-following.	Noted.
NATS	<p>The following points are offered for consideration:</p> <p>Letter of Consultation. Section 2.7. Description of "coverage down to 500' ... across virtually the whole of the North Sea".</p> <p>Impact Assessment. Section 2.2.4. Description of "coverage down to 500' across virtually the whole of the North Sea".</p> <p>It is unlikely that 500' across the whole North Sea is feasible and the systems being rolled out at present would only offer this level of cover in a reduced area. There are numerous plots to support this. The details in the Article 42 amendment to the ANO 42(1)(d)(i) details coverage from 1000', which is consistent with what seems possible offshore in the UKCS.</p>	Agreed. The text of the IA has been amended accordingly. However, the change does not affect the intent of the proposal.
CAA FOD	<p>Proposed amendment to Article 42(1)(d)(iii)(bb).</p> <p>It is suggested that the word "<i>initiating</i>" be replaced with '<i>initiation</i>'.</p>	Agreed. The proposed text of the Article has been amended accordingly.
CAA ATSD	<p>a. Proposed amendment to Article 42(1)(d).</p> <p>Final sentence, amend "<i>Except that</i>" to '<i>except that,</i>' to provide a more comprehensible link to the opening sentence "<i>in the case of a helicopter...</i>"</p> <p>b. Proposed amendment to Article 155. Flight-following system. It is recommended that the text of the definition be amended to remove an action – final sentence - and to read</p>	<p>a. Agreed. The text of the proposal has been amended accordingly.</p> <p>b. Agreed. The text of the proposal has been amended accordingly.</p>

Commenter	Comments	Responses
	<p>more succinctly:</p> <p><i>“Flight-following system” means a system of providing the position of an aircraft to a person or organisation at a location remote from the aircraft at frequent and regular intervals by means other than voice communication, thereby ensuring that a person or organisation knows its position is known throughout the flight; The operator shall satisfy himself as to the competence of the person or organisation monitoring the system</i></p>	

Summary Costs and Benefits Table for Amending the ANO

Option	Total benefit per annum: economic, environmental, social policy and administrative	Total cost per annum: economic, environmental, social policy and administrative
1	By not requiring operators to take advantage of flight-following and two-way communications, there may be a small saving in workload for the pilot.	No direct cost. There would be no improvement in safety or reduction in the risk of an airprox with the consequential social, economic and administrative burdens that could ensue.
2	Reclassifying the airspace to a higher level would require all users of such airspace to comply with more stringent flight rules. This would standardise the level of service being provided but would have wider implications for users other than offshore helicopters and may not be practical or economically viable.	The reclassification of the airspace to a higher level would require additional investment to update the air traffic control service functions, which in turn would have to be passed on to the operator and users through standard en-route navigation charges. Any changes of airspace classification would be subject to the Airspace Classification Process laid down in <i>CAP 725 Airspace Change Process Guidance Document</i> . The cost to upgrade and reclassify the airspace in equipment, administration and publicity terms would be considerable.
3	By requiring operators to ensure that they utilise flight-following and two-way communications, the safety of offshore helicopter operations would be improved and there would be a reduction in the risk of an airprox with the consequential improvement in social, economic and administrative burdens.	All operators of public transport helicopters are already required by Schedule 5 of the ANO 2009 to have SSR and VHF radios. Therefore, for operators utilising Multilateration, there are no additional costs to the operators associated with the fitting of equipment, but there would a small increase to the en-route navigation charges associated with this proposal which would be passed on to the customer. For those operators utilising any other form of flight-following, costs would vary according to the system and equipment chosen and the fitting and support arrangements. These costs have been included in the Summary sheet.

Detailed Proposals for Amending the ANO 2009

1. Add after Article 96:

Public transport – helicopter operator’s responsibilities in relation to flight-following

96.A—(1) This article applies to any offshore flight for the purpose of public transport -

- (a) by a helicopter registered in the United Kingdom;**
- (b) by any helicopter where the flight commences in the United Kingdom; or**
- (c) by any helicopter where the flight commences from an offshore installation or renewable energy installation.**

(2) The operator of a helicopter must not permit the helicopter to commence a flight to which this article applies without first being satisfied using every reasonable means that the requirements of paragraph (3) are satisfied.

(3) The requirements referred to in paragraph (2) are that subject to paragraph (4)—

- (a) the helicopter will throughout the intended flight be able to maintain communications with the appropriate air traffic control unit or flight information service unit from 1000 ft above the take-off surface until the commencement of the approach to land;**
- (b) a monitored flight-following system is available at the intended cruise altitude or level; and**
- (c) at every place (whether or not an aerodrome) at which it is intended to take off and any other place (whether or not an aerodrome) at which a landing may be made there is a responsible person whose duties include—**
 - (i) immediately after the helicopter’s departure, the passing of the time of take-off, intended route and expected time of arrival to the responsible person at the helicopter’s intended place of destination; and**
 - (ii) the initiation of any necessary overdue action in accordance with the operations manual.**

(4) In the case of subparagraphs (3)(a) and (b), a flight may be conducted in accordance with alternative procedures approved in writing by the CAA.

2. Amend Article 247:

Extra-territorial effect of the Order (b)

247—(1) Except where the context otherwise requires, the provisions of this Order, in so far as they apply (whether by express reference or otherwise)—

- (a) to aircraft registered in the United Kingdom, apply to such aircraft wherever they may be; and**

(b) Paragraph 6 of Part III of Schedule 13 to the Civil Aviation Act 1982 c.16, as amended by section 101 of the Energy Act 2004 c.20, authorises the inclusion in an Air Navigation Order of certain extra-territorial provisions. *It defines an offshore installation and a renewable energy installation.*

(b) to such other aircraft when they are within the United Kingdom or on or in the neighbourhood of an offshore installation **or a renewable energy installation**.

(2) Except where the context otherwise requires, the provisions of this Order in so far as they prohibit, require or regulate (whether by express reference or otherwise) the doing of anything—

(a) by persons in, or by any of the crew of, any aircraft registered in the United Kingdom, apply to such persons and crew, wherever they may be;

(b) in relation to any aircraft registered in the United Kingdom by other persons, where such persons are Commonwealth citizens, British protected persons or citizens of the Republic of Ireland, apply to them wherever they may be; and

(c) in relation to any aircraft on or in the neighbourhood of an offshore installation **or a renewable energy installation**, apply to every person irrespective of their nationality or, in the case of a body corporate, of the law under which it was incorporated and wherever that person or body may be.

(3) Nothing in this article is to be construed as extending to make any person guilty of an offence in any case in which it is provided by section 3(1) of the British Nationality Act 1948(c) that that person will not be guilty of an offence.

3. Add to Article 255 the following definitions:

‘Flight-following system’ means a system of providing the position of an aircraft to a person or organisation at a location remote from the aircraft at frequent and regular intervals by means other than voice communication, thereby ensuring that its position is known throughout the flight;

‘Offshore flight’ means a helicopter flight for the purpose of public transport, which is conducted over sea areas to or from vessels or structures including those used in support of, or in connection with, the exploitation, or exploration, of mineral resources (including gas) or renewable energy;

4. Amend Schedule 8 as follows:

SCHEDULE 8

Public transport - operational requirements

Part A – Information and instructions which must be included in an operations manual

1 Information and Instructions relating to the following matters must be included in an operations manual-

(w) *In the case of an offshore flight, the overdue action procedure.*

(c) 1948 c.56. Section 3(1) limits the criminal liability of certain persons who are not citizens of the United Kingdom and colonies.