



**Department
for Transport**

UK-Ireland Functional Airspace Block

Documentation to confirm compliance with:

*COMMISSION REGULATION (EU) No 176/2011 of 24
February 2011 on the information to be provided before
the establishment and modification of a functional airspace
block*



NATS

21st March 2012: Final

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1. Introduction

1.1. *Requirements for an established FAB:*

The FAB for Ireland and the United Kingdom was established in July 2008, with official notification published in OJ C 46/2009, p 26.

The proposal for the implementation of the FAB was developed in May 2008, in accordance with the existing regulatory criteria at that time.

As an established FAB, this document has been developed to comply with Article 6 of Regulation (EU) No. 176/2011 on the information to be provided before the establishment and modification of a functional airspace block; as follows:

Article 6: Functional airspace blocks already established

Member States concerned which have already established a functional airspace block prior to the entry into force of this Regulation shall ensure that the required information laid out in the Annex, which has not been already submitted as part of their notification, is provided to the Commission at the latest by 24 June 2012.

In accordance with Article 3: Demonstration of Compliance, the Member States are required to jointly provide the information set out in the Annex to the Regulation to demonstrate fulfilment of the requirements of Article 9a of Regulation (EC) No 550/2004.

A distinct advantage has resulted in carrying out this exercise; the FAB has been able to review its progress to-date, which has helped to revalidate its positive and increasing net contribution to airspace users.

1.2. *Methodology:*

It is important to contextualise the approach adopted by the UK-Ireland FAB. Therefore, Section 2 of this document provides a high level recap of the scope, goals and objectives, governance, implementation and inter-FAB coordination activities.

The ANSPs and NSAs for Ireland and the UK have reviewed the required information within the Annex to the Regulation and verified the following;

- Information requirements which are new for the FAB, i.e. not required in the original proposal; – new information is therefore provided,
- Information requirements which are not new for the FAB, i.e. have already been provided in the original proposal; – no new information is therefore necessary, and
- Information requirements which are not new for the FAB but upon which further clarification can be provided to enhance the original proposal and

ensure the complete fulfilment of the Annex to the Regulation; – new information is therefore provided

Taking this verification process into account, a detailed “Compliance Matrix” has been presented in Section 3 of this document, supported by relevant appendices in Section 4.

For any new requirement, detailed information is provided directly within the “Compliance Matrix”, and supported, if necessary by an Appendix.

Similarly, detailed information is also provided directly within the “Compliance Matrix” regarding some requirements which are not new to the FAB but merit further clarification.

Finally, in the case of all other requirements, a statement has been provided to verify ongoing compliance, cross-referenced against the original proposal.

2. Recap of the UK-Ireland FAB

2.1. Scope of the FAB

It is important to contextualise the approach adopted by the UK-IRELAND FAB. Firstly, it is an “operationally-driven” FAB with the primary objective of delivering operational efficiency to airspace users, generating pass-through cost savings as a result of reduced fuel-burn and CO2 emissions. Secondly, the FAB is developing incrementally through a “design and build” approach on a partnership basis between the ANSPs, airlines, military and staff, and supported by the coordinated work of the Irish and UK NSAs.

The FAB focuses on four key areas;

- Airspace Design (long-term strategic developments),
- Service Provision (operational / day-to-day developments),
- Safety (harmonisation of our approach to safety),
- Technology (collaboration and SESAR alignment).

One of the core functions of the UK-Ireland FAB is to ensure the successful integration of traffic flows between the North Atlantic (NAT), domestic UK-Ireland, and core European area traffic.

The FAB covers the airspace in the Shannon, London and Scottish FIRs, the Northern Oceanic Transition Areas (NOTA) and the Shannon Oceanic Transition Area (SOTA), controlled by the IAA and NATS En Route LTD (NERL).

2.2. Original goals and objectives

In the original May 2008 proposal document, the ANSPs set out five headline goals for the FAB, as follows;

- Safety across the UK-Ireland FAB will be enhanced to meet anticipated traffic increases,
- Financial savings in service quality benefits for Airline Users are estimated as:
 - By 2013: €12m per annum, through delay savings, reduced fuel-burn and CO2 emissions savings,
 - By 2018: €40m per annum indicative savings by 2018, through fuel savings, delay savings, sector savings from airspace redesign, CNS/ATM technology savings,
- Environmental benefits through the development of environmentally efficient routes for both oceanic and TMAs,
- Delays will, at the very least, meet the European target of 1-minute maximum average delay per flight, and
- Technology coordination to align with the SESAR Framework.

The original proposal indicated that the headline goals, would be delivered through the implementation of activities relating to eight near-term objectives, as follows;

1. Safety
2. Performance Management and Reporting
3. Airspace Design Optimisation
4. Oceanic Transition
5. Airspace Management Optimisation – Civil/Military Coordination
6. Capacity/Service Delivery
7. Environment
8. Interaction with other FABs.

The updated cost-benefit analysis (CBA) in Section 3.2.4 clearly shows that the goals and objectives are being met and indeed exceeded. As a result of the work implemented by the FAB, the estimated enabled savings to customers during 2012 is estimated to be €26.6m, including 25,000 tonnes of fuel, equivalent to €18.7m in fuel costs. Customers will also save over 80,000 tonnes of CO₂, and €1.0m in reduced CO₂ emissions (ETS) charges. Non-fuel savings through reduced delays (reduced maintenance, crew and aircraft ownership costs) are estimated at €6.8m. [Full details contained in Appendix I - FAB CBA, Final 9th Jan 2012]. This contribution is well ahead of the original target of €12m in annual savings to be achieved by 2013.

2.3. Governance

The FAB has continued to evolve since it was first established in July 2008. The organisation chart below reflects the current governance structure of the FAB (February 2011). Under the State level, the ANSP FAB Management Board (FMB) is responsible for implementing the FAB;

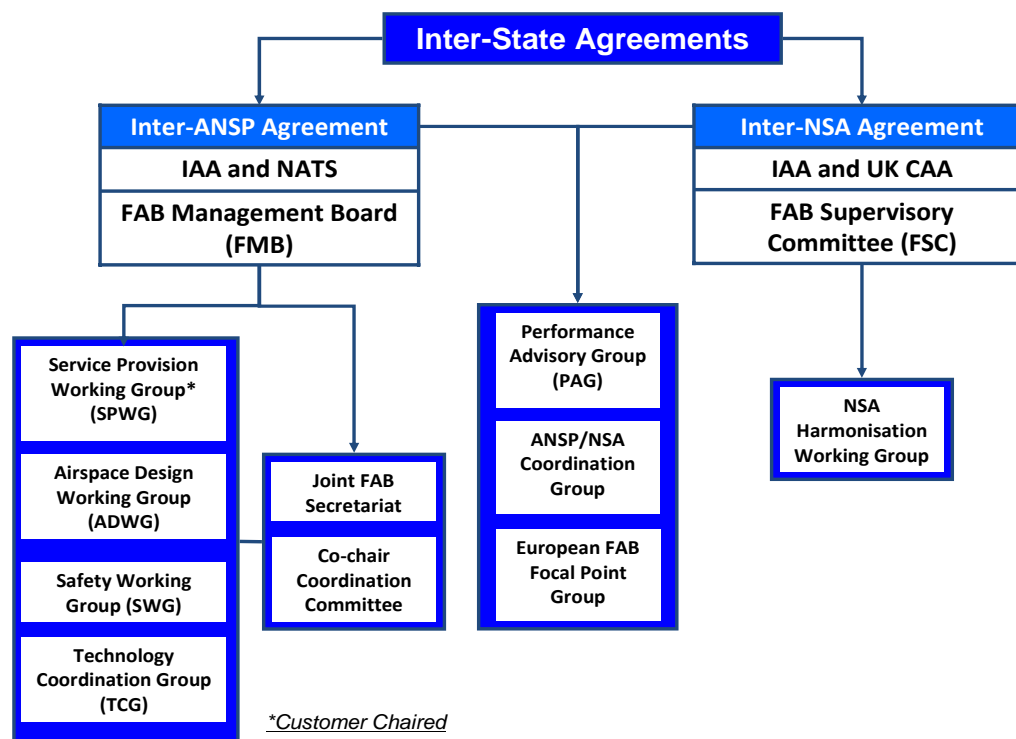
- The FMB is Co-Chaired by the respective NATS and IAA Directors of Operations who oversee the implementation and performance management of the FAB and, in particular, the work of the four subgroups on Airspace Design, Service Provision, Safety and Technology.
- FMB decisions are reached on a consensus basis but the ultimate decision making power (for recommendation) lies jointly with the Co-Chairs of the Board. The joint Chairmen of the Management Board report to their respective CEOs, who in turn ensure that appropriate briefing is given to company Boards, Trade Unions and Shareholders.
- The Co-Chairs of each Working Group are members of the FMB and participate in the consensus decision making process.
- The Irish and UK Military are members of the FMB, and participate as required in Working Groups, with active participation in the Airspace Design Working Group.
- Airline representatives function as the Co-Chair of the Services Provision Working Group (SPWG). The Working Groups for Airspace Design (ADWG), Safety (SWG), and the Technology Coordination Group (TCG) are Co-Chaired by representatives from the IAA and NATS.

- Staff representatives participate directly in the Working Groups, in particular the activities of the ADWG and SPWG.
- The Co-chair Coordination Committee (or C3) was introduced during 2010 to ensure work progresses at all levels and to consider proposals for the FMB. Coordination of activities is also provided by the Joint FAB Secretariat.

The joint NSA FAB Supervisory Committee (FSC) provides regulatory oversight on behalf of the States, and manages the activities of the NSA Harmonisation Working Group.

The structure also includes the joint ANSP/NSA Performance Advisory Group, a joint ANSP/NSA Coordination Group, and the UK-Ireland FAB representation on the European FAB Focal Point Group.

One area of note is that there are a number of smaller working groups which feed into this formal structure and manage individual work programmes.



2.4. Implementation Processes

2.4.1. ANSP Implementation Process

The FMB ensures the successful implementation of the FAB, through the management of the rolling 'FAB Plan', which is a working document containing a technical description of activities. The Plan is currently in its third cycle for the period 2011-14.

The current FAB Plan contains over 25 distinct projects for implementation by the four Working Groups. It also sets out plans in relation to key supporting areas,

such as SES Implementing Rules, SESAR IP1 alignment, ANSP/Regulatory coordination, and inter-FAB coordination. Some key projects contained in the current Plan include;

- UK-Ireland FAB Network Management (by the end of March 2012)
- SMS Harmonisation through a common policy and FAB Safety Management Manual.
- Feasibility study into the development of High Level Sectors (TEN-T funded).
- Integration of AIM activities.
- Cross-FIR FAB FUA proposals.
- Various technology collaborative projects.
- Enhanced joint customer engagement activities.

An Annual FAB Report is also produced, setting out the progress of the FAB during the previous period. The Report provides a summary of the significant achievements delivered by the FAB and is validated by the airspace customers.

Both documents are fully transparent and are available in the public domain.

2.4.2. NSA Implementation Process

The two NSAs also work closely together through the FAB Supervisory Committee (FSC) and a number of supporting groups. Through the FSC, the NSAs oversee the ANSP plans and coordinate advice to Governments. The NSAs are also working proactively on harmonising regulatory frameworks, through the NSA Harmonisation Working Group, and collaboratively on new EU legislation such as SERA and the Performance Scheme.

2.4.3. European Engagement

Engagement with European stakeholders is a critical element of the UK-Ireland FAB implementation process. Joint ANSP and NSA representation is provided for in relation to the European Commission FAB Focal Point Group. The review of draft documents and draft legislation concerning the FAB is carried out on a joint ANSP/NSA FAB basis and responses are provided on a coordinated basis. Preparatory work to support interfaces with the FAB coordinator are also carried out on a joint Ireland/UK basis. We also coordinate our positions in many other European meetings such as the SSC and its working groups.

2.5. *Inter-FAB Coordination*

In March 2011, a Memorandum of Understanding was signed between the ANSPs of the UK-Ireland FAB (IAA and NATS) and Danish-Swedish FAB (Naviar and LfV) to investigate the options of joint cooperation and/or possible FAB merger. This work is ongoing and is also being conducted in support of the overall Borealis framework, based on the wider integration between all nine ANSPs from the NEAP grouping, aimed at greater operational and cost efficiency across the whole airspace. In July 2011 ANSP representatives of the DK-SE FAB attended the UK-Ireland FAB Management Board meeting, and in October 2011, NSA representatives of the DK-SE FAB attended the UK-Ireland FAB Supervisory Committee meeting. The NSAs are being kept informed of the development and stand ready to consider any formal proposal.

Further to the above, the UK is a collaborative partner in FABEC and NATS play an active role in FABEC development activities. To enhance future inter-FAB activities, a FABEC ANSP representative attended the December 2011 FAB Management Board meeting, with further planned meetings at an ANSP level between the two FABs during the first half of 2012.

2.6. *Concluding remarks on the UK-Ireland FAB*

The FAB has been operating highly successfully since it was first established in July 2008. The programme of work being implemented by the ANSPs and NSAs is helping to meet the objectives of the Single European Sky.

All planned ANSP projects have now been introduced and are delivering repeat financial and operational savings to customers in terms of reduced CO₂, fuel burn costs, and track miles. These projects were developed on a partnership basis with our airspace users. Other projects are feeding into the lifetime of the current FAB Plan 2011 – 14 and they too will further enhance safety, improve operational efficiency and deliver further customer savings, and reduce ANSP costs.

The ongoing discussions between the ANSPs of the UK-Ireland and Danish-Swedish FABs, demonstrate a clear commitment to delivering further savings over a wider geographical scope.

As a result of the work implemented by the FAB, the estimated enabled savings to customers during 2012 is estimated to be €26.6m, which is well ahead of the original target of €12m in annual savings to be achieved by 2013. We are confident the UK-Ireland FAB will continue to deliver additional savings to our airspace users and ensure that Ireland and the UK can provide a positive contribution to the underlying objectives of the Single European Sky.

3. Compliance Matrix to the Annex of Regulation (EU) No 176/2011

3.1. PART 1 General information (of the Annex)

1. The Member States concerned shall specify:

(a) the point of contact for the functional airspace block;

UK-IRELAND Response: The point of contact for the UK-Ireland FAB is;

Stephen Hand
Head of European ATM Policy Co-ordination
Directorate of Airspace Policy Co-ordination
Civil Aviation Authority
K6 Gate 5, CAA House
45-59 Kingsway
London
WC2B 6TE

Tel: +44 (0)20 7453 6507
Email: stephen.hand@caa.co.uk

(b) the defined dimensions of the functional airspace block;

UK-IRELAND Response:

The FAB covers the airspace in the Shannon, London and Scottish FIRs, the Northern Oceanic Transition Areas (NOTA) and the Shannon Oceanic Transition Area (SOTA), controlled by the IAA and NATS En Route LTD (NERL), with the following dimensions:

Shannon FIR/UIR

552000N 0065500W,
552500N 0072000W, 552000N 0081500W,
544500N 0090000W, 543400N 0100000W,
540000N 0150000W, 510000N 0150000W,
510000N 0080000W, 522000N 0053000W,
535500N 0053000W, 542500N 0081000W,
552000N 0065500W.

Shannon Oceanic Transition Area

(SOTA) 510000N 0150000W, 510000N
0080000W, 483000N 0080000W, 490000N
0150000W, 510000N 0150000W

Northern Oceanic Transition Area

(NOTA) 570000N 0150000W, 570000N
0100000W, 543400N 0100000W, 540000N
0150000W, 570000N 0150000W

London FIR

550000N 0050000E - 513000N 0020000E -
510700N 0020000E - 510000N 0012800E -
504000N 0012800E - 500000N 0001500W -
500000N 0020000W - 485000N 0080000W -
510000N 0080000W - 522000N 0053000W -
550000N 0053000W - 550000N 0050000E.

Scottish FIR

610000N 0000000E - 600000N 0000000E -
570000N 0050000E - 550000N 0050000E -
550000N 0053000W - 535500N 0053000W -
542500N 0081000W - 552000N 0065500W -
552500N 0072000W - 552000N 0081500W -
544500N 0090000W - 543400N 0100000W -
610000N 0100000W - 610000N 0000000E.

- (c) *the jointly designated air traffic service providers and meteorological service providers, if applicable, and their respective areas of responsibility;*

UK-IRELAND Response:

The IAA and NERL were jointly designated by the Governments of Ireland and the United Kingdom of Great Britain and Northern Ireland on the 13th June 2008, as follows:

For the purposes of Article 8.4 of Regulation (EC) No 550/2004 ("the Service Provision Regulation") the United Kingdom of Great Britain and Northern Ireland and Ireland hereby jointly designate NATS (En Route) plc (company registration No. 4129273) and the Irish Aviation Authority Air Navigation Services Operations Directorate as air traffic service providers for the UK/Ireland FAB to provide air navigation services within the UK/Ireland FAB.

Meteorological Services are currently designated at national level. There is no intention to jointly designate Met Services within the UK-IRELAND FAB.

- (d) *the providers of air traffic services providing services without certification in accordance with Article 7(5) of Regulation (EC) No 550/2004 and their respective areas of responsibility.*

UK-IRELAND Response:

The Irish Air Corps is the only service provider in Ireland without certification as it is not required.

UK Ministry of Defence is the only service provider in the UK without certification as it is not required.

2. *The Member States concerned shall provide the following information on the arrangements concluded regarding the establishment or modification of the functional airspace block, including:*

(a) *copy of the documents which reflect the mutual agreement of the Member States concerned to establish the functional airspace block;*

UK-IRELAND Response: Agreement signed June 12th 2008. The State Memorandum of Understanding has been updated as follows;

- Amendment to 'Paragraph 5 – Reserved Matters' to reflect civil/military arrangements, and
- Additional of a new 'Paragraph 8 – Modification' to reflect FAB modifications processes.

Please see **Appendix B: 'State level' Ireland and UK Memorandum of Understanding, 25th January 2012.**

(b) *information on the arrangements between the national supervisory authorities in the functional airspace block;*

UK-IRELAND Response: Agreement signed June 12th 2008. The NSA Memorandum of Understanding has been updated extensively to reflect changes since the original agreement came into force.

Please see **Appendix C: 'NSA level' IAA and UK CAA Memorandum of Understanding, 25th January 2012.**

(c) *information on the arrangements between the air traffic service providers in the functional airspace block;*

UK-IRELAND Response: Agreement signed June 12th 2008. An Addendum has been added to the original ANSP Memorandum of Understanding to reflect the ANSP- to-ANSP FAB modification processes.

Please see **Appendix D: 'ANSP level' IAA and NATS Addendum to the Memorandum of Understanding (12th June 2008), 25th January 2012.**

(d) *information on arrangements between competent civil and military authorities in respect of their involvement in the governance structures of the functional airspace block.*

UK-IRELAND Response:

A reference to the Civil/Military arrangements in place for the UK-Ireland FAB is included in Paragraph 5 – Reserved Matters of the amended State-to-State MOU, 25th January 2011.

The integration of the MIL, both within State and within the FAB, is fully recognised. The Irish and UK military authorities are an integral part of the UK-Ireland FAB. They have been involved in the governance structure and decision making process, since the FAB was implemented in July 2008, having representatives on the ANSP FAB Management Board. Furthermore, the Irish

and UK Military authorities are actively involved in the implementation of projects which necessitate closer civil-military cooperation, as well as cross-FIR projects to support FAB level FUA; cross-FIR FUA proposals are currently being assessed. Therefore, Military representatives participate in the Airspace Design Working Group (ADWG).

Section 2.3 Governance, confirms the role of the Irish and UK MIL on the FAB Management Board.

3.2. PART II (of the Annex) – Requirements of Article 9(a) of Regulation (EC) No 550/2004

3.2.1. 1. Safety Case

1. Functional airspace block safety case

With regard to the functional airspace block safety case, the following information shall be provided:

- (a) the common safety policy or plans to establish a common safety policy;*
- (b) a description of the arrangements dealing with accident and incident investigation and plans on how to address safety data collection, analysis and exchange;*
- (c) a description of the way in which safety is being managed to avoid degradation in safety performance within the functional airspace block;*
- (d) a description of the arrangements clearly identifying and allocating the responsibilities and interfaces with relation to the setting of safety targets, safety oversight and the accompanying enforcement measures in regard to the provision of air navigation services within the functional airspace block;*
- (e) documentation and/or statements that the safety assessment including hazard identification, risk assessment and mitigation has been conducted before introducing operational changes resulting from the establishment or modification of the functional airspace block.*

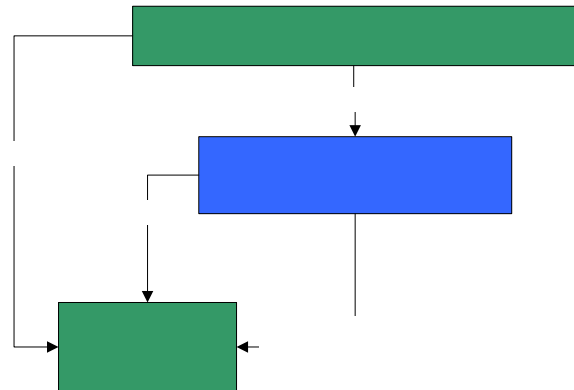
UK-IRELAND Response:

Organisational Structure

The entities and organisational structures and their respective responsibilities within the SES framework can be summarised as illustrated in Fig. 1.

More specifically, the different entities are responsible for the following activities:

- Member State nominates or establishes the NSA (note: the EASA term Competent Authority is used instead of NSA throughout the rest of this safety case).
- Competent Authority certifies ANSPs against the Common Requirements (CRs).
- Member State (or Competent Authority on behalf of the Government in the UK) designates ANSP (holding a valid certificate) for operations within an airspace block under their responsibility.



Our approach to Competent Authority Approval

The evidence and arguments presented in this section show that the safety management arrangements for the UK-Ireland FAB are fit for purpose and meet the requirements of the FAB Implementing Rule EC 176/2011 for a FAB Safety Case.

The high level argument shown in Appendix E is a graphical representation of the FAB Implementing Rule Safety Case Requirements.

Accompanying the graphical argument is:

- A compliance matrix examination of how the specific requirements of the regulation related to the FAB 'Safety Case' will be met (shown in Appendix F). This includes a more detailed graphical representation of the argument.
- A rationale for how the argument and evidence has been constructed (shown in Appendix G). Note that the compliance matrix is only partially populated with evidence in this version of the document.
- Further work is planned under the FAB agreement to harmonise the ANSP's safety management systems and safety plans.

The compliance arguments presented in Appendix F are based upon the current organisational arrangements within the UK-Ireland FAB. The FAB is comprised of distinct volumes of airspace where service provision is exclusively provided by NATS or the IAA, who have been Certificated and Designated by their respective Competent Authorities. The Competent Authorities also oversee ongoing service provision for their respective service providers.

The FAB Plan 2011-14 (which is updated every year) provides for further harmonisation by:

- The generation of a FAB Safety Management Manual;
- Development of a common just culture policy for the FAB;
- Harmonisation in our approach to compliance with the SES Standardised European Rules of the Air Implementing Rule;
- Implementation of improvements in operational safety between IAA and NATS air traffic units.

The process by which the IAA and NATS separately meet Commission Regulation (EU) No 1035/2011 (the Common Requirements) is presented in Appendix H - Establishment of Common Requirements for the provision of air navigation services.

FAB Safety Case Requirement	Compliance Statement
<i>(a) the common safety policy or plans to establish a common safety policy;</i>	Common policy agreed as evidence in Appendix F Item 1.
<i>(b) a description of the arrangements dealing with accident and incident investigation and plans on how to address safety data collection, analysis and exchange;</i>	The arrangements are set out in Appendix F Item 2.
<i>(c) a description of the way in which safety is being managed to avoid degradation in safety performance within the functional airspace block;</i>	A description is set out in Appendix F Item 3.
<i>(d) a description of the arrangements clearly identifying and allocating the responsibilities and interfaces with relation to the setting of safety targets, safety oversight and the accompanying enforcement measures in regard to the provision of air navigation services within the functional airspace block;</i>	A description is set out in Appendix F Item 4.
<i>(e) documentation and/or statements that the safety assessment including hazard identification, risk assessment and mitigation has been conducted before introducing operational changes resulting from the establishment or modification of the functional airspace block.</i>	Documentation and statements are referenced in Appendix F Item 5.

3.2.2. 2. Optimum use of airspace

The Member States concerned shall provide the following information:

- (a) a description of the relations with the relevant network functions for airspace management and air traffic flow management referred to in Article 6 of Regulation (EC) No 551/2004 of the European Parliament and of the Council(1), including the coordination, arrangements and procedures to achieve optimised use of the airspace;*
- (b) in respect of airspace management within the functional airspace block not covered by the network functions referred to in Article 6 of Regulation (EC) No 551/2004, information on:*
 - *the arrangements for an integrated airspace management,*
 - *the provisions for sharing of airspace management data,*
 - *the arrangements for an effective cooperative decision-making;*
- (c) in respect of real time coordination within the functional airspace block:*
 - *a description of how cross-border activities are managed if new areas are created resulting from the establishment or modification of the functional airspace block.*

UK-IRELAND Response:

- **With regard to clause (a) and (b):** One of the major FAB projects currently underway is the introduction of an integrated network management function across Irish and UK airspace, which will deal with both tactical and pre-tactical / strategic planning aspects. The target date for implementation is the end of March 2012. The implementation of this function will make a significant contribution towards the optimum use of the whole FAB airspace.

FAB Network management overview

The aim of a joint network management function is to strike a balance between ATM capacity and airspace user demands with a major emphasis on improved safety, flight efficiency, environmental impact, and cost. Significantly, both airspaces will be treated as one continuum and, on a daily basis the four ACC centres (Dublin, Prestwick, Swanwick, and Shannon) will participate in network management for all FAB traffic. Planning functions will also be integrated and information will be promulgated from a central website for ease of use (technical hardware systems are being put in place to share information and decision making processes between the ACCs).

On a practical basis, this function will be physically located in Swanwick with inputs from all the Centres on a regular basis. Station Managers/Coordinators will represent Shannon and Dublin Centres and Ops Room Supervisors will represent Prestwick and Swanwick Centres in the day-to-day tactical management of the function. A final decision on all safety and service delivery matters remains with the Station Managers /Watch Managers in each Station.

Airports will interface with each centre as required and the introduction of Airport-CDM will play an important role in the future.

Airlines will have direct contact with the Network Management cell and an approved methodology needs to be agreed for Centre interfaces with this procedure.

Governance

An ANSP FAB Operations Board, consisting of the Operational Directors/GM's of the four ATC centres, will meet regularly to discuss operational Performance, operational policy and high level conflict resolution. However, this Board will not be the primary managers for the function. An agreed day-to-day management structure will be put in place.

Integrated FAB Network Management Structure

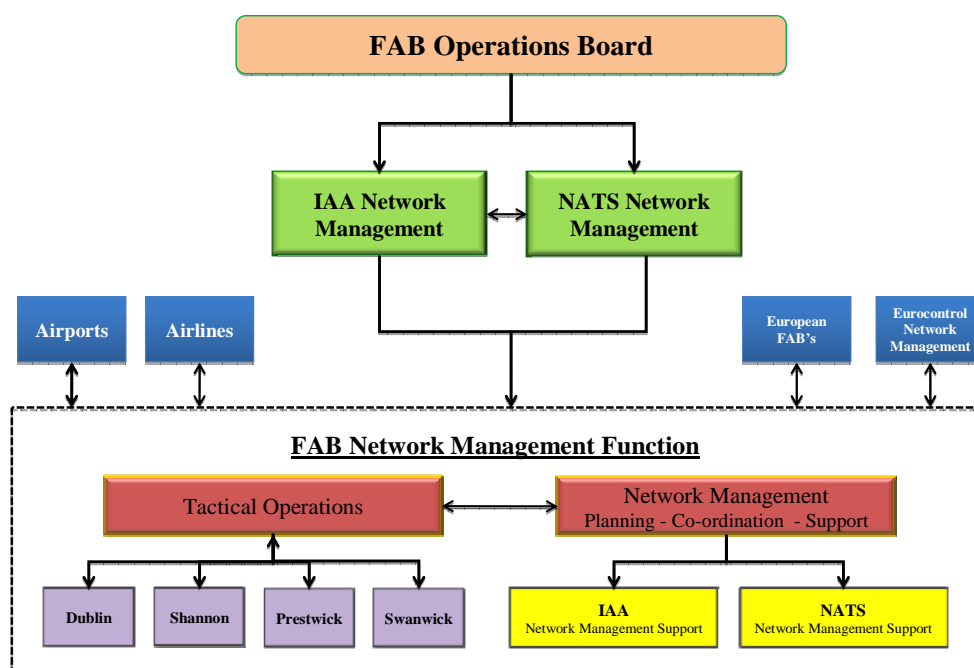


Fig 2. FAB Operation Board Governance Structure (to support integrated Network Management)

European Network Manager

This integrated network management function will link with the wider European Network Manager and will fully comply with the Network Management regulatory requirements, Commission Regulation (EU) 677/2011 of 7 July 2011 as amended.

Civil/Military Coordination

From a Civil/Military perspective, the LARA tool is being introduced to the FAB to deliver enhanced civil/Military coordination and provide for a more efficient use of the whole airspace for all airspace users.

Other examples to support 'optimum use of airspace'

Further to the above, a number of other enabler projects have already been implemented, which aims to support the optimisation of airspace utilisation, including;

- 8-week strategic brief (since September 2010): Joint publication by the IAA and NATS to air operators which provides more effective short-term coordination.
- Daily FAB Pre-tactical network brief (since April 2010): Joint publication by the IAA and NATS to air operators which allows airlines to identify the most efficient routes and plan more direct routes.

A number of FAB projects are delivering enabled customer savings, with the objective of delivering optimum use of airspace. All of these projects have been implemented by the IAA and NATS on a FAB basis, and include;

- ADWG-8 ENSURE Project: From December 2009 – Near 'free route' airspace within the Shannon FIR; removal of ATS routes from Shannon Upper to allow direct routing and flight planning from entry point to exit planning (Note: Planned introduction in conjunction with NATS on a FAB basis in order to maximise the operational efficiencies).
- ADWG-10 (Night Time) Fuel Saving Routes [NTSFRs]: Various routes introduced from December 2009 – Flight plannable direct routes across Irish/UK airspace.
- ADWG-13 CDA into Manchester: From March 2010 – Continuous Descent Approach for early morning arrivals off the North Atlantic into Manchester TMA.
- ADWG- Reduced Longitudinal Separation on the NAT: From March 2011 – Longitudinal Separation on the North Atlantic Track structure for traffic exiting the NAT from 10 to 5 minutes (trial commenced in March 2011, and extended to March 2014)
- ADWG-16 Dublin TMA 2012 Development (Point Merge): From December 2012 – Systemised approach procedure for Dublin approach including Continuous Descent Approaches, maximum capacity usage of the single runway operation at Dublin, and maximise the departure rate for Dublin airport especially during the first rotation.
- High Level Sectors Concept – This feasibility study (TEN-T funded), due for completion in December 2012, is aiming to secure an agreed concept for FAB high level sectors in the future, including possible cross-FIR sectors for high level airspace.

With regard to clause (c): Completed via original proposal. Please see Appendix A - UK-Ireland FAB Proposal May 2008 – Extract, which contains a list of Letters of Agreement.

3.2.3. 3. Consistency with the European route network

The Member States concerned shall provide information to demonstrate that route design and implementation for the functional airspace block is consistent with, and completed within, the established process for overall coordination, development and implementation of the European route network referred to in Article 6 of Regulation (EC) No 551/2004.

Member States concerned may refer to information already provided to the Commission as part of the implementation of the single European sky.

UK-IRELAND Response:

As outlined in section 3.2.2. '2. Optimum use of airspace', the UK-IRELAND FAB plans on introducing regional Network Management by the end of March 2012. The proposed approach and structure is compatible with Commission Regulation (EU) No 677/2011 of 7 July 2011, laying down detailed rules for the implementation of air traffic management (ATM) network functions and amending Regulation (EU) No 691/2010.

The FAB is working closely with the Network Manager to consider options feasible in relation to flow management, airspace management and capacity management, and will take the opportunity to make relevant proposals.

Furthermore, the UK-Ireland FAB is represented on the Network Management Board (NMB) by the NERL Managing Director as the UK-Ireland FAB NMB voting member, the IAA Chief Executive as the alternate member. Arrangements have been put in place to coordinate lines to take for the meeting between the NSAs and ANSPs of the FAB.

Additionally we are taking a FAB approach to the cooperative decision making processes of the Network Management Function by coordinating our input and attendance at the Eurocontrol expert teams that will support the NMF consultation arrangements.

3.2.4. 4. Overall added value based on cost-benefit analyses

The Member States concerned shall provide statements confirming that:

- (a) the cost-benefit analysis was conducted according to industry standard practice, using among others discounted cash flow analysis;*
- (b) the cost-benefit analysis provides a consolidated view of the impact of the establishment or modification of the functional airspace block on the civil and military airspace users;*
- (c) the cost-benefit analysis demonstrates an overall positive financial result (net present value and/or internal rate of return) for the establishment or modification of the functional airspace block;*
- (d) the functional airspace block contributes to a reduction of the aviation environmental impact;*
- (e) values for costs and benefits, their sources and the assumptions made to develop the cost-benefit analysis were documented;*
- (f) the main stakeholders were consulted and provided feedback on the costs and benefit estimates which are applicable to their operations.*

UK-IRELAND Response:

[For full details, please refer to Appendix I FAB CBA, Final 9th Jan 2012]

Previous Cost-Benefit Analysis (CBA) work:

As part of the original UK-Ireland FAB May 2008 proposal, the ANSPs conducted a high-level Cost-Benefit Analysis (CBA), which complied with the regulatory requirements laid down under SES 1 legislation (See Appendix A: UK-Ireland FAB Proposal May 2008, section 5.3. pages 75-85). The conclusion of this original CBA work was that the FAB would add value and that financial savings to airline customers, in terms of service quality benefits, which were estimated as follows;

- By 2013: €12m per annum, through delay savings, reduced fuel-burn and CO2 emissions savings,
- By 2018: €40m per annum indicative savings by 2018, through fuel savings, delay savings, sector savings from airspace redesign, CNS/ATM technology savings.

New CBA requirement and new UK-IRELAND CBA:

The UK-Ireland FAB has developed a CBA, which complies fully with new specific CBA criteria outlined in PART II Requirements of Article 9a(2) of regulation (EC) 550/2004, (4) (see above). In developing this CBA, account has also been taken of the information provided by the European Commission through its published Guidance Material.

A distinct advantage has resulted in carrying out this exercise; the FAB has been able review its progress to-date, which has helped to verify its positive net contribution to airspace users.

CBA Objective:

Due to the operational nature of the UK-Ireland FAB, the aim of the CBA is to analyse and estimate:

- the 'benefits', in terms of enabled financial and environmental savings to airspace customers, as a result of operational projects implemented by the FAB, and
- the 'costs' in terms ANSP investment and operating costs for the FAB.

The primary objective of this analysis is to show if the enabled savings secured by customers as a result of the operational projects implemented by the FAB, exceed the ANSP implementation and operating costs, and if this shows a positive Net Present Value (NPV).

NPV Result and enabled customer savings:

The resulting CBA has confirmed that the FAB delivers an overall positive NPV of €176.1m by 2020 (baseline scenario). On the basis of the CBA sensitivity analysis performed, the total aggregated estimated enabled savings and NPV for the period 2008-2020 differ as follows:

2008 - 2020 Estimated Enabled Savings	Low traffic + Low Fuel	Low Traffic	Baseline Traffic + Baseline Fuel	High Traffic	High Traffic + High Fuel
Fuel Burn t ('000)	322	322	332	346	346
Fuel cost €('000)	€202.9	€233.4	€241.2	€251.7	€284.9
CO2 (t)	1,023	1,023	1,056	1,101	1,101
CO2 €('000)	€14.9	€14.9	€15.4	€16.3	€16.3
Non-fuel €('000)	€77.4	€77.4	€79.9	€83.3	€83.3
Total Saved €('000)	€295.2	€325.7	€336.5	€351.2	€384.4
Total Costs €('000)	€20.3	€20.3	€20.3	€20.3	€20.3
NPV €m	€154.4	€170.7	€176.1	€183.4	€201.0

The total estimated 'baseline' enabled savings per annum are displayed in the table below. The FAB was established in July 2008 but no project delivered any direct savings until 2009. As it presently stands, it is estimated that in 2012, total enabled customer savings will be €26.6m, including 25,000 tonnes of fuel, equivalent to €18.7m in fuel costs. Customers will also save over 80,000 tonnes of CO₂, and €1.0m in reduced CO₂ emissions (ETS) charges. Additional non-fuel savings (reduced maintenance, crew and aircraft ownership costs) are estimated at €6.8m.

Based on these projects alone (and not accounting for additional projects which are not currently planned for in the future), the baseline enabled annual savings by 2020 are estimated to reach €36.2m, including 35,000 tonnes of fuel and 111,000 tonnes of CO₂.

In the baseline scenario, the total cumulative enabled savings from 2008-2020 amounts to €336.5m, including reduced fuel burn of 332,000 tonnes and reduced CO2 emissions of 1.06bn tonnes.

Baseline – Total Enabled Savings	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	Total
Fuel Burn (t '000)	1	22	24	25	29	31	32	32	33	34	34	35	332
Fuel cost €m	€0.5	€12.0	€17.8	€18.7	€21.4	€23.0	€23.4	€24.0	€24.4	€24.9	€25.4	€25.9	€241.2
CO2 (t '000)	4	71	77	80	92	98	100	103	104	107	109	111	1,056
CO2 €m	N/A	N/A	N/A	€1.0	€1.3	€1.5	€1.6	€1.7	€1.9	€2.0	€2.2	€2.2	€15.4
Non-Fuel € ('000)	€0.0	€6.5	€6.7	€6.8	€7.0	€7.1	€7.3	€7.4	€7.5	€7.7	€7.9	€8.0	€79.9
Total €m	€0.5	€18.5	€24.5	€26.6	€29.6	€31.5	€32.3	€33.1	€33.8	€34.6	€35.4	€36.2	€336.5

Qualitative benefits

Further to the above, the FAB has also implemented a number of projects which have or will deliver substantial qualitative benefits. These benefits are absolutely critical in terms of their positive contribution to the FAB and benefits to all stakeholders (to the ANSPs and to the MIL and Civil airspace users). It is essential to take these qualitative benefits into consideration as part of the consolidated CBA assessment process. For the most part, the primary qualitative benefits relate to;

- Enhanced safety and safety harmonisation,
- More effective tactical and strategic planning between the ANSPs,
- More efficient network management,
- Enhanced coordination on airspace design and cross-FIR airspace management, and
- Collaborative Technical opportunities and SESAR alignment.

FAB and the impact on 'dependencies'

The FAB also supports a significant number of dependences, as follows;

Dependency	UK-Ireland FAB Support (Highlights only)
Optimum airspace utilisation	<p><i>Procedures / Process:</i></p> <ul style="list-style-type: none"> ▪ Regional FAB network management (by the beginning of April 2012) ▪ 8-week strategic brief (since September 2010) ▪ Daily FAB Pre-tactical network brief (since April 2010): ▪ Civil/Military coordination: LARA tool

Dependency	UK-Ireland FAB Support (Highlights only)
	<p><i>Projects delivering direct enabled savings:</i></p> <ul style="list-style-type: none"> ▪ ENSURE – near ‘free route’ within the Shannon FIR ▪ (Night Time) Fuel Saving Routes – Flight plannable direct routings across the whole of the FAB airspace. ▪ High Level Sectors (HLS) Concept - feasibility study to secure an agreed concept for FAB high level sectors.
<p>Consistency with the European route network</p>	<ul style="list-style-type: none"> ▪ FAB network management will be fully consistent with the new European network management function. ▪ FAB is working closely with the Network Manager to consider options feasible in relation to flow management, airspace management and capacity management. ▪ FAB is jointly represented on the Network Management Board by the Managing Director of NERL. ▪ Coordinating our input and attendance at the Eurocontrol expert teams that will support NMF consultation.
<p>Smooth and flexible transfer of responsibility for ATC</p>	<ul style="list-style-type: none"> ▪ Letters of Agreement provided for cross border provision of air traffic services. ▪ New procedures are planned for FAB network management. ▪ Civil/Military arrangements will be enhanced through LARA. ▪ The Irish and UK LSSIPs make full reference to all coordination procedures between concerned adjacent air traffic service providers.
<p>Compatibility of airspace configurations and optimisation of airspace structures</p>	<ul style="list-style-type: none"> ▪ FAB Common Transition Altitude: by Winter 2013/14. ▪ Performance Based Navigation: joint policy agreed in Oct 2011. ▪ Standardised European Rules of the Air (SERA): Fully engaged with the Commission, EASA and EUROCONTROL.
<p>Setting national or FAB level performance plans and targets consistent with the EU-wide performance targets</p>	<ul style="list-style-type: none"> ▪ Separate national performance plans for RP1 but with a significant level of cooperation, including coordination of stakeholder consultation activities. ▪ Joint ANSP/NSA “Performance Advisory Group” ▪ Plans to produce a common FAB Performance Plan for RP2 (2015-2018) and have begun work to scope the options and what detailed is required to deliver this.
<p>Optimising the use of technical resources</p>	<ul style="list-style-type: none"> ▪ Technology collaboration is actively being pursued through the FAB (7 current projects). ▪ Technical systems are also being put in place to support FAB network management. ▪ ATM system cost savings secured through inter-ANSP cooperation with other ANSPs in European, as follows; <ul style="list-style-type: none"> ▪ IAA: COOPANS, supporting the DK-SE FAB.

Dependency	UK-Ireland FAB Support (Highlights only)
	<ul style="list-style-type: none"> ▪ NATS: iTech, supporting the South West FAB.
Optimising the use of human resources	<ul style="list-style-type: none"> ▪ Duplications of a number activities have (or will in the future) been rationalised in a number of support services, e.g. operational planning publications. ▪ Network management could assist in terms of minimising the potential impact of staff shortages. ▪ FAB High Level Sector feasibility study could also assist in optimising the use of human resources across FAB Upper airspace sectors.

Summary cross-check table

Further to the above, the following table provides a cross-check of the CBA against the FAB IR CBA specific requirements.

FAB IR Annex Part II, 4, requirements	Compliance Statement
<p><i>(a) the cost-benefit analysis was conducted according to industry standard practice, using among others discounted cash flow analysis;</i></p>	<p>To ensure that that the methodology and approach was conducted according to industry standard practice, draft material for this CBA was examined by qualified experts within the IAA and NATS. This information was used to refine the CBA model on the basis of collective expert assessments.</p> <p>Furthermore, on behalf of the FAB, the IAA contracted KPMG to conduct an external review based on the following terms:</p> <ul style="list-style-type: none"> • <i>“review the CBA Report for the UK-Ireland FAB to consider if:</i> <ul style="list-style-type: none"> <i>(a) it was conducted according to industry standard practice as stated in the CBA guidance contained in the EUROCONTROL document “D06-06 - ATM CBA for Beginners – Edition 00.01.00” provided to KPMG by the Client; and</i> <i>(b) it broadly follows the European Commission Guidance material as advised to us by the Client (i.e. as per the following link http://www.skybrary.aero/index.php/7.4.05_Cost-benefit_analyses)</i> <p><i>For the avoidance of doubt KPMG will not consider the specific inputs into the FAB CBA and will give no opinion in this regard;</i></p> <ul style="list-style-type: none"> • <i>review the underlying financial model (“the Model”)</i>

FAB IR Annex Part II, 4, requirements	Compliance Statement
	<p><i>and report to you on whether, in our opinion:</i></p> <ul style="list-style-type: none"> ▫ <i>so far as its mechanical construction is concerned, it has been constructed appropriately so as to achieve the objectives which it was designed to meet; and</i> ▫ <i>the calculations in the model are arithmetically correct.</i> <p><i>Our work in respect of the Model will be limited to the matters set out above and accordingly will not include, for the avoidance of doubt, any form of review of:</i></p> <ul style="list-style-type: none"> ▫ <i>the commercial merits or technical feasibility;</i> ▫ <i>the factual accuracy of the input data and the validity or reasonableness of the underlying assumptions; or</i> ▫ <i>the key accounting or tax assumptions used in the Model and accordingly we will express no opinion thereon."</i> <p>Please see Appendix J, KPMG Letter to IAA concerning the UK-Ireland FAB CBA.</p>
<p><i>(b) the cost-benefit analysis provides a consolidated view of the impact of the establishment or modification of the functional airspace block on the civil and military airspace users;</i></p>	<p>A consolidated view confirms the ANSPs, the airlines and the military benefit from the FAB. On a specific stakeholder basis;</p> <p>Customers: As it presently stands, it is estimated that in 2012, total enabled customer savings will be €26.6m, including 25,000 tonnes of fuel, equivalent to €18.7m in fuel costs. Customers will also save over 80,000 tonnes of CO₂, and €1.0m in reduced CO₂ emissions (ETS) charges. Additional non-fuel savings (reduced maintenance, crew and aircraft ownership costs) are estimated at €6.8m. Based on these projects alone (and not accounting for additional projects which are not currently planned for in the future), the baseline savings by 2020 are estimated to reach €36.2m, including 35,000 tonnes of fuel and 111,000 tonnes of CO₂.</p> <p>MIL: The Irish and UK military authorities are an integral part of the UK-Ireland FAB and are actively involved in the implementation of projects which necessitate closer civil-military cooperation, as well as cross-FIR projects to support FUA at a FAB level.</p> <p>Furthermore, the FAB has also implemented a number of projects which are or will deliver substantial qualitative benefits. These benefits are absolutely</p>

FAB IR Annex Part II, 4, requirements	Compliance Statement
	critical in terms of their positive contribution to the FAB and the benefits to all stakeholders (to the ANSPs and to the MIL and Civil airspace users). It is essential to take these qualitative benefits into consideration as part of the consolidated CBA assessment process.
<i>(c) the cost-benefit analysis demonstrates an overall positive financial result (net present value and/or internal rate of return) for the establishment or modification of the functional airspace block;</i>	<p>The primary objective of this analysis is to show that the savings secured by customers as a result of the operational projects implemented by the UK-Ireland FAB, exceed the ANSP implementation and operating costs, and that this shows a positive Net Present Value (NPV).</p> <p>Taking account of the estimated customer savings (Section 4.2 of Appendix I) and the estimated ANSP costs (Section 5 of Appendix I), the baseline scenario confirms that the FAB will deliver an overall positive financial result, with a Net Present Value of €176.1m by 2020.</p> <p>[<u>Note:</u> The period in question covers 2008 – 2020 (13 years). The discount rate for the CBA is 7.25%, which is an average for the nominal discount rate for the IAA and NATS.]</p>
<i>(d) the functional airspace block contributes to a reduction of the aviation environmental impact;</i>	<p>Significant environmental benefits have been / will be generated as a direct result of the projects implemented by the FAB to-date or in the near future. Customer benefit from access to more optimal routings, as result of;</p> <ul style="list-style-type: none"> ▪ Free route airspace ▪ Longer direct routings ▪ Continuous Decent Approaches ▪ Greater airspace user flight planning flexibility ▪ Cross-FIR airway enhancements <p>Therefore, during the period 2008-2020, environmental savings from existing projects (not accounting for any potential future unplanned implementation projects), are estimated at approximately 332,000 tonnes of fuel and 1.06 billion tonnes of CO₂ emissions. More projects will be identified which will further increase these substantial environmental savings.</p>
<i>(e) values for costs and benefits, their sources and the assumptions made to develop the cost-benefit analysis were</i>	<p>The following data sources were used;</p> <ul style="list-style-type: none"> ▪ Published UK-IRELAND FAB Plans and Reports ▪ Exchange rates source: www.oanda.com ▪ Fuel costs per tonne source: www.platts.com ▪ CO₂ Costs per tonne source: IATA Economics,

FAB IR Annex Part II, 4, requirements	Compliance Statement
<i>documented;</i>	<p>18/7/2011</p> <ul style="list-style-type: none"> ▪ Traffic Forecast source: EUROCONTROL Medium-Term Forecast Flight Movements 2011-17, Oct 24th 2011 ▪ Non-fuel costs savings - Delay Costs Per Minute: Standard Inputs for EUROCONTROL Cost Benefit Analyses, Edition Number: 4.0, October 2009
<i>(f) the main stakeholders were consulted and provided feedback on the costs and benefit estimates which are applicable to their operations.</i>	<p>The draft CBA was presented to the airline community at the second joint CEO/Customer Forum on the 7th December 2011 to, as part of the consultation and verification process. A copy was made available through both the IAA and NATS online security restricted customer websites from the 7th – 21st December. (Note: No changes were required to be made to the CBA as no feedback was provided by customers during the consultation phase.)</p> <p>As members of the FAB Management Board, the Irish and UK Military representatives were presented the CBA on the 6th December. Approval was secured on the CBA during this meeting.</p> <p>Staff within the IAA and NATS have direct representation within the Working Group structure and are continuously kept apprised of all FAB projects. The requirement to consult with staff on this retroactive CBA (i.e. its contents and its development) was therefore unnecessary.</p>

3.2.5. 5. Smooth and flexible transfers

The Member States concerned shall provide information to demonstrate that the transfer of responsibility for air traffic control is smooth and flexible within the functional airspace block. This shall include the following information on the changes introduced by the establishment or modification of the functional airspace block:

- (a) a description of the arrangements for cross border provision of air traffic services;*
- (b) the arrangements concluded to enhance coordination procedures between the concerned air traffic service providers within the functional airspace block and further planned initiatives to enhance coordination;*
- (c) a description of the arrangements concluded to enhance coordination procedures between the concerned civil and military air traffic service providers and further planned initiatives to enhance coordination in line with the concept of flexible use of airspace;*
- (d) a description of the arrangements concluded to enhance coordination procedures with the concerned adjacent air traffic service providers, and further planned initiatives to enhance coordination.*

UK-IRELAND Response:

With regard to clause (a): Completed via original proposal. Please see Appendix A - UK-Ireland FAB Proposal May 2008 – Extract, which contains a list of Letters of Agreement.

With regard to clause (b): In terms of further planned initiatives to enhance coordination procedures between the IAA and NATS, please refer to section 3.2.2. '2. Optimum use of airspace', which outlines the UK-Ireland FAB plans on introducing regional Network Management in March 2012.

With regard to clause (c): The Irish and UK military authorities are an integral part of the UK-Ireland FAB. They have been involved in the governance structure and decision making process, since the FAB was implemented in June 2008, having representatives on the ANSP FAB Management Board. Furthermore, the Irish and UK Military authorities are actively involved in the implementation of projects which necessitate closer civil-military cooperation, as well as cross-FIR projects to support FUA at a FAB level.

With regard to clause (d): The Irish LSSIP 2011-15 and UK LSSIP 2011-15 refers. In summary;

From the 2011-2015 LSSIP Ireland:

- 14:2.3.1 Airspace falling under the responsibility of Ireland
 - *Donegal Area, ATS provided by NATS on behalf of Ireland, p14-4*
- 14.2.3.2 Airspace falling under the responsibility of another State
 - *Airways L975, L70, L18, TAKAS box and BANBA Area, ATS provided by IAA on behalf of UK, p14-4*

- *TAKAS Box East of the Shannon Oceanic Transition Area (SOTA)*, ATS provided by IAA on behalf of France, p14-5

From the 2011-2015 LSSIP United Kingdom:

- 14:2.3.1 Airspace falling under the responsibility of UK
 - *North Sea Area II*, ATS provided by AVINOR on behalf of UK, p14-5
 - *North Sea Area III, North Sea High Area*, ATS provided by NAVIAIR on behalf of UK, p14-6
 - *North Sea Area V*, ATS provided by LVNL on behalf of UK, p14-7
 - *Southern North Sea CTA 2(GODOS), Southern North Sea CTA 3 (MOLIX)*, ATS provided by LVNL of UK, p14-8
 - *Southwest Corner of the UK UIR (PEMAK Triangle)*, ATS provided by DSNA on behalf of UK, p14-9
 - *Brest Oceanic Transition Area (BOTA)*, ATS provided by DSNA on behalf of UK, p14-10
 - *Section of Lille TMA (TMA 7)*, ATS provided by DSNA on behalf of UK, p14-11
 - *Irish Sea (Airway L18 BADSI-LIPGO), Irish Sea (BANBA CTA)*, ATS provided by IAA on behalf of UK, p14-12
 - *Irish Sea (Airway L975 LIFFY-GINIS), Irish Sea (Airway L70 BAGSO-RAMOX)*, ATS provided by IAA on behalf of UK, p14-13
 - *Southwest Corner of the UK UIR (TAKAS Box)*, ATS provided by IAA on behalf of UK, p14-14
 - *Northern Oceanic Transition Area (NOTA)*, ATS provided by IAA on behalf of UK, p14-15
 - *Shannon Oceanic Transition Area (SOTA)*, ATS provided by IAA on behalf of UK, p14-16
 - *RATSU Triangle, The Common Boundary Line (61N)*, ATS provided by Isavia on behalf of UK, p14-17

- 14.2.3.2 Airspace falling under the responsibility of another State
 - *North Sea Area I*, ATS provided by NATS on behalf of Norway, p14-18
 - *North Sea Area IV*, ATS provided by NATS on behalf of Iceland, p14-19
 - *REFSO Areas A and B, SASKI Areas B and C*, ATS provided by NATS on behalf of Netherlands, p14-20
 - *La Manche West Low, La Manche East Low*, ATS provided by NATS on behalf of France, p14-21
 - *La Manche East High*, ATS provided by NATS on behalf of France, p14-22
 - *Donegal Area*, ATS provided by NATS on behalf of Ireland, p14-23
 - *Eglinton CTA 1, 2 and 3*, ATS provided by CODA (Ops) on behalf of Shannon ATC

3.2.6. 6. Ensure compatibility between different airspace configurations

The Member States concerned shall provide information on the available plans how to achieve harmonised organisation and classification of different airspace configurations within the functional airspace block. The plans shall include:

- (a) the principles for airspace classification and airspace organisation for the functional airspace block;*
- (b) the changes of airspace configuration resulting from the harmonisation within the functional airspace block.*

UK-IRELAND Response:

Ireland and the UK are fully engaged with the Commission, EASA and Eurocontrol on the development of the draft SERA Regulations. Once the regulations have been agreed they will be implemented in the FAB and these will facilitate harmonised application of the Rules of the Air, including the rules applicable to airspace classification.

In addition, one of the aims of the UK's Future Airspace Strategy is to make the configuration of the airspace less complex in terms of both its uncontrolled/controlled airspace classification and its international boundaries, through simpler airspace structures integrated across National and FAB boundaries. The FAB is engaged in the following;

- FAB Common Transition Altitude: The Irish and UK Regulators are working to implement revised arrangements to harmonise the Transition Altitude by Winter 2013/14.
- Performance Based Navigation: joint policy agreed in Oct 2011, following a consultation with industry and other stakeholders for implementation across the FAB.

Finally, the avoidance of complicated airspace structures and the application of appropriate airspace classifications are standing requirements of the national Airspace Change Processes.

3.2.7. 7. Regional agreements concluded within the ICAO

The Member States concerned shall provide the list of existing regional agreements concluded in compliance with the framework established by Annex 11 to the Convention on International Civil Aviation which are of relevance with respect to the establishment and operations of the functional airspace block.

UK-IRELAND Response:

The FAB currently excludes airspace within the ICAO NAT Region where the UK and Ireland are responsible for the provision of air traffic services. In the event that changes are required to facilities or services provided in that airspace as a result of the FAB, or modifications are sought to the current arrangements such as the incorporation of that airspace within the FAB, these would be subject to the Regional Air Navigation Agreement amendment procedure and would thus need to be examined on a case-by-case basis by the NAT States concerned. The agreements are approved by the ICAO Council normally on the advice of Regional Air Navigation Meetings

3.2.8. 8. Regional agreements in existence

The Member States concerned shall provide a list of existing agreements concluded by one or more of the Member States concerned, including those with third countries, which are of relevance with respect to the establishment and operations of the functional airspace block.

UK-IRELAND Response:

Details of arrangements and agreements concluded between UK and Ireland in relation to cross border arrangements within the FAB are contained in section 14.2.3 of the UK and Ireland LSSIP documents. For the sake of brevity they are not reproduced here.

3.2.9. 9. European Union-wide performance targets

9.1. The Member States concerned shall provide information on the arrangements concluded in order to facilitate consistency with the European Union-wide performance targets referred to in Article 11 of Regulation (EC) No 549/2004.

9.2. Member States concerned may refer to information already provided to the Commission under the provision of Article 5 of Commission Regulation (EU) No 691/2010 (1).

UK-IRELAND Response:

Ireland and the UK elected to produce separate national performance plans for Reference Period 1 along with the required aggregated FAB plan. However there has been a significant level of cooperation which has taken place in the development of the National Plans. Both NSAs have worked together extensively to produce the national plans including coordination of stakeholder consultation activities. A joint ANSP/NSA "Performance Advisory Group" was established to support this coordination process (and illustrated in Section 2.3 Governance). Furthermore, the two States have plans to produce a common FAB Performance Plan for RP2 (2015-2018) and have begun work to scope the options and what detailed is required to deliver this.

4. Appendices

Appendix A: UK-Ireland FAB Proposal May 2008 – Extract

Appendix B: ‘State level’ Ireland and UK Memorandum of Understanding, 25th January 2012

Appendix C: ‘NSA level’ IAA and UK CAA Memorandum of Understanding, 25th January 2012

Appendix D: ‘ANSP level’ IAA and NATS Addendum to the Memorandum of Understanding, 25th January 2012

Appendix E: FAB Safety Case Goal Structuring Notation Argument

Appendix F: FAB Safety Case Evidence

Appendix G: Rationale for approach to GSN for satisfaction of FAB Safety Case Requirements

Appendix H: Establishment of Common Requirements for the provision of air navigation service

Appendix I: UK-Ireland FAB Cost Benefit Analysis

Appendix J: KPMG Letter to the IAA concerning UK-Ireland FAB CBA