

## **Progress against UK-Ireland FAB Implementation Plan**

### **Introduction**

This document gives an update, as of October 2014, on the progress of key projects within the FAB since the submission of the Implementation Plan to the Commission in November 2013. Projects are set out in the order they were presented in the plan.

### **Dynamic Sectorisation**

Objective:

- To gather enabling information in support of the implementation of free route airspace across the UK/Ireland FAB using a Dynamic Sectorisation Operational Trial (DSOT).

Update :

#### *Phase 1*

- Phase 1 (Rathlin) went live on 9th Jan 2014 and was completed as planned on 18 September 2014.
- The Phase 1 (Rathlin) trial was successful with no negative impact to safety in the area and enjoyed a good sample rate and exposure to external events with valuable operational information gathered.
- Analysis of the extensive volume of Phase 1 operational data is underway with a conclusive report due in December 2014. Early in-trial data indicates that this concept has the potential to deliver enhanced Customer operational and cost efficiencies in the future but the extent will become clearer once the full nine months of data has been analysed.
- Positive feedback has been received from airspace users.
- A UK Ministry of Defence Joint Warrior exercise was conducted during the DSOT Phase 1 with no detrimental impact to either military or civil operational activity as a result of the trial being in place.
- At initial implementation of Phase 1, a small number of flight planning issues were identified as a result of interpretation issues by the Flight Planning Service Providers but these were quickly resolved with no negative impact on Airline operations in the DSOT environment.
- The DSOT Project Executive Core Team, consisting of senior managers drawn from UK and Ireland ANSPs and NSAs, has reviewed the trial objectives and confirmed circa 75% of overall objectives have been delivered in Phase 1. To date, over £1m has been invested in DSOT and over 200 members of UK and Irish staff have been engaged.

#### *Phase 2*

- Phase 2 (Dublin) is currently in the definition and planning phase and the ANSPs are considering several operational options for it. This process will include a detailed risk assessment of the impact and effectiveness of each proposed option to the operational ATS environment and DSOT data collection capability. This is slightly later than foreseen in the DSOT plan, but the expected delay in starting phase 2 is necessary to ensure it takes full account of lessons learned during Phase 1 and the remaining outstanding project objectives. Phase 2 will explore some of the technical issues involved in facilitating the dynamics of transferring provision of ATM services from one ANSP to another on a regular basis.
- The DSOT Project Core Team has reviewed the objectives achievement from the very successful Phase 1 and anticipate that the remaining 25% of overall project objectives will be achieved during Phase 2.
- The delayed start date to Phase 2 will not however impact on the target date for trial completion of December 2015.

## **Queue Management**

Objective:

- Optimisation of FAB airspace using cross border arrival management tools.

Update:

- The trial started in April 2013 and is going well, with very few issues reported from NATS, IAA, other ANSP partners or airlines.
- EGLL AMAN delay data is sent in XML format to ANSP partners. Data to the IAA is sent via ERIN (UK IRLAND FAB Communication Network)
- Delay data is presented to ATCOs so that arrival traffic can be acted upon at 350nm from EGLL.
- A speed reduction is applied of between M0.02 and M0.03 dependant on the level of delay, the traffic scenario at the time and the ANSP requirements.
- Meetings have taken place between Shannon, Reims and Prestwick in order to gain updates - all report all is well in operations and engineering.
- Phase 3 commenced on the 18<sup>th</sup> September and is due for completion on the 31 December 2014. This provides for an increase in the maximum speed reduction to M0.04 for all participating ANSPs and a reduction in the holding trigger for the application of speed reduction from 9 to 7 minutes. Data has been analysed and indicates that a significant amount of time is being absorbed during the cruise phase. Further work is being carried out to determine how this translates into time removed from stack holding.
- Additional communication with airlines has taken place, including a two day road show at Heathrow Terminal 5, NAMEUR forums, World ATM Congress and individual Customer briefings.
- It is planned to extend this trial into 2015 with the long terms aim to increase the range at which speed reductions are requested, out to 550nm, i.e.XMAN.
- Analysis of the impact of time absorbed in the cruise phase for all stakeholders sector occupancy, sector opening times, staffing and the SES Performance Scheme Environmental KPIs will be required and any mitigating actions agreed prior to any permanent implementation of the procedures.

## **Common Regulatory functions**

Objective:

- To implement coordinated, collaborative and cooperative regulatory arrangements.

Update for each element:

### *Common Procedures for the Oversight of Change to the ATM Systems*

- The NSAs and ANSPs have worked together to formulate and implement the FAB Safety Management Arrangements (SMA) document, which is formally acknowledged by the UK/Ireland FAB Supervisory Committee (FSC) and currently stands at Version 1 and is in use for operational validation under the DSOT.
- The NSA oversight process is compatible with and complementary to the SMA and was put to good effect for the first phase of the DSOT project. Lessons learnt from this activity will be carried forward for phases two and three to further harmonise the procedures of the FAB NSA oversight process.
- The NSA bodies jointly contribute, benefit and pre-prepare common future procedures from the shared deployment of a CAA (Safety and Airspace Regulation Group) staff member to EASA, on the design and drafting task force on Safety Assessment of Changes to the Functional Systems. The outcome of this task force is intended (by EASA) to form a key component of the EASA ATM/ANS IR proposals.

### *Exchange of Regulatory Personnel in Safety Auditing Action*

- Regulatory staff exchanges have occurred in the form of witnessing on-site audits of ACCs. It is intended that both NSAs will participate in further 'cross border' audits in Q4 of 2014 (FUA Level II). Outside of the audit programme there is regular contact by video conference and telephone to deliver operational oversight and the allocation of regulatory oversight resources, responsibilities and action on DSOT and other day-to-day matters. The FAB NSAs share their staff and other resources through deploying a single representative of both the UK and Ireland NSA bodies to key European ( e.g. NCP working group ) and other international fora and meetings (e.g. ICAO).
- Further opportunities for task, workload and resource sharing are being actively considered in a task on 'Future Options for the NSA Operation'. This work is commissioned jointly by the UK and Ireland DfTs and is being managed and facilitated by the FAB Supervisory Committee (FSC).

#### *Cooperative Preparation for EASA Safety Audit*

- In its lead up to the EASA Standardisation audit of the UK in June 2014, the IAA Safety Regulation Department (SRD) has been kept abreast of the process and outcomes of preparation work done by the UK. This cooperative action helps inform the IAA of any potential 'issues' or potential findings that may arise from the audit for the UK and where proactive resolution action is being taken or reactive action is planned, for which oversight re-alignment may be a consequence within the FAB. This NSA cooperation and sharing of preparation experience continues. The CAA and IAA SRD met in September to debrief on the standardisation inspection.

#### *Safety Partnership Arrangement between UK and Ireland*

- The partnership is established and safety data sharing with access to each State's occurrence reports and database is in place and active. Safety data exchange between the CAA and IAA SRD, in the ATM area, provides for a greater sample size of occurrences when analysing trend data and for determination of occurrence rates. The next plenary meeting of the Partnership is planned for December 2014.
- The CAA and IAA SRD met in Dublin to discuss Performance Based Regulation, specifically the CAA programme for Enhancing Safety Performance (ESP). It has been that we will use this methodology to help the NSAs to construct a risk picture for the FAB to enable more effective allocation of NSA resource within the governance structure. As a first exercise, the two NSAs will conduct a joint analysis to identify the top risks to the FAB utilising the ESP. This activity is due to commence in Q4 2014.
- Techniques, tools and outcomes from implementing a Performance Based Oversight approach and developing a Risk Picture for the UK/Ireland FAB are being shared with other FABs through cooperation in the NSA Coordinating Platform FAB Working Group.

#### *Performance Plan for RP2*

- The FAB Performance plan was submitted to the PRB for assessment on 27 June 2014, the Commission's views on it are now awaited. It should be noted that the plan includes targets which are more ambitious than the targets set for the EU.

### **Harmonised Safety Management**

#### Objective:

- To develop a harmonised approach to safety within UK/Ireland FAB

Update:

- As foreseen in the implementation plan, work on a Safety Management Arrangements Manual has been completed to the extent that a mature version of the document is being used to validate the Dynamic Sectorisation Operational Trial.
- The arrangements provide a means of maintaining a harmonised approach to safety management and safety assurance between NATS and the IAA, and hence a more closely aligned approach to safety within the UK/Ireland FAB.

## **Future Airspace Strategy (FAS)**

Objective:

- The Future Airspace Strategy (FAS) aims to enable a modernised air traffic management system that provides safe, efficient airspace, that has the capacity to meet reasonable demand, balances the needs of all users and mitigates the impact of aviation on the environment. Elements of FAS are being implemented at a FAB level.

### *Harmonised Transition Altitude (TA)*

- A decision was made by the FAS Deployment Steering Group in December 2013 to proceed to a second State Consultation on the TA with a CONOPS developed to support a level of 18 000ft.
- The CAA has always planned for a second, more detailed consultation to follow once the actual level was confirmed and a CONOPS was developed. This consultation is scheduled to take place between November 2015 and February 2016.
- In February 2014 the NSAs of the UK, Ireland, Norway and the Isle of Man signed a Letter of Intent to demonstrate their intention to implement a TA of 18 000ft at the same time and based on the same high level CONOPS.
- All sides acknowledge that there will have to be a lead-in time from when the TA was agreed until the implementation date and therefore implementation is not likely to be before November 2017.
- The UK in particular had to make a decision on the final TA by March 2014, as a higher TA is an enabler for the main elements of the LAMP and NTCA airspace redesign projects. Now that the EASA NPA is unlikely to be before the end of 2014 at the earliest, the UK will be unable to await a European decision on TA as it does not wish to delay its major airspace redesign projects and the benefits that they will provide. Nonetheless, the UK/Ireland/Norway aim to influence the European decision with its participation in the Harmonised European TA (HETA) Rulemaking Group and at the very least the intention will be to gain agreement that no State proposing a harmonised TA above 10 000ft ahead of an EASA decision should have to repeat the exercise if the final European decision is not in agreement.
- Ireland will issue an Aeronautical Information Circular later this year to inform airspace stakeholders of the intent to introduce a TA of 18 000 ft.
- On European engagement, the UK has undertaken a TA Influencing Strategy programme with the view of convincing our near continental neighbours to join the UK, Ireland and Norway in implementing an 18 000ft TA.
- The CAA hosted an 'Adjacent States' meeting in London on the 26 November 2013 to inform our near neighbours of the UK's progress to date. This includes the proposed procedures in the high level CONOPS which NATS and the CAA are jointly developing.
- Many States would rather wait until an EASA decision has been made before committing themselves to a change of TA. Therefore it has now become clear that no other countries are likely to implement a higher TA in the same timescales as the UK and its partners, and so plans will have to be drawn up to address any boundary issues which may arise.
- As a related issue, in May 2014 Russia let it be known that it was planning to change from utilising metres to feet in Russian airspace and also that it is seriously considering the option of an 18000ft TA.
- Deployment options for TA in the UK will be taken forward under the FAS Deployment Plan, with NATS delivering change within controlled airspace through its airspace change programmes, including the TA Project itself and the LAMP.

- In addition the proposed performance plan for RP2 includes a financial incentive on NATS to implement an 18,000ft TA.

#### *Low Density/Low Complexity Area (LDLCA)*

- Following publication of the LDLCA Scoping Study in October 2013 the UK CAA Safety & Airspace Regulation Group (SARG) and IAA Safety Regulation Department (SRD) committed to a programme of work to produce a strategy for LDLCA within the UK/Ireland FAB.
- In Q1 2014, internal UK CAA ownership of the programme changed and the initial FAS LDLCA Consultative Group met in July 2014. The inaugural meeting agreed TORs, which were produced by IAA SRD and UK CAA in consultation with the Scoping Study's funding partners and work also began on the draft strategy.
- With continued collaboration and input from the regulators and funding partners, the programme remains on schedule to produce a strategy for LDLCA airspace by the end of 2014 and it remains the intention of the UK CAA and IAA SRD to include this within the main FAS document.
- The next meeting will be held in Dublin on the 4<sup>th</sup> of December 2014

### **Introduction of the 3Di Metric into Irish Airspace**

#### Objective:

- Inclusion of FAB 3Di targets for RP2 in the FAB performance plan.

#### Update:

- As part of work to prepare the RP2 Performance plan there has been consideration of FAB level work to improve environmental contribution.
- Regarding the development of the 3Di metric into Irish Airspace, the IAA SRD has considered this but concluded that Irish upper airspace is free route facilitating user preferred trajectories and so 3Di would deliver little if any value but would add to the regulatory cost burden. No further work is planned on this activity as a result.
- The RP2 Performance plan includes other environmental actions in line with the Performance Scheme regulatory framework.

### **Technical Convergence Strategic Plans**

#### Objective:

- These plans will underpin the roadmap for the future of the UK/Ireland airspace.

#### Update:

- ANSP work underway but awaiting confirmation that RP2 targets are acceptable before plans can be finalised.
- Strategic options for the FAB are currently being considered to allow an update to be delivered to the next FAB state level meeting on 28th November 2014, although this work is expected to continue into 2015.
- NATS and the IAA are currently implementing SESAR compliant technical and operational strategies which are fully aligned to the European ATM master plan, interoperability legislation and Pilot Common Project.

- The FSC has considered collaborative safety oversight of the multi-ANSP and pan-European Borealis industrial partnership. The FSC has committed to actively explore cooperative and pragmatic working arrangements with other NSAs having oversight in FABs where their ANSPs are stakeholders in Borealis. This will manifest in a Borealis NSA Conference to be held in London in the early months of 2015. This will also allow us to take account of the outcome of SES II+ discussions on FABs and industrial partnerships.