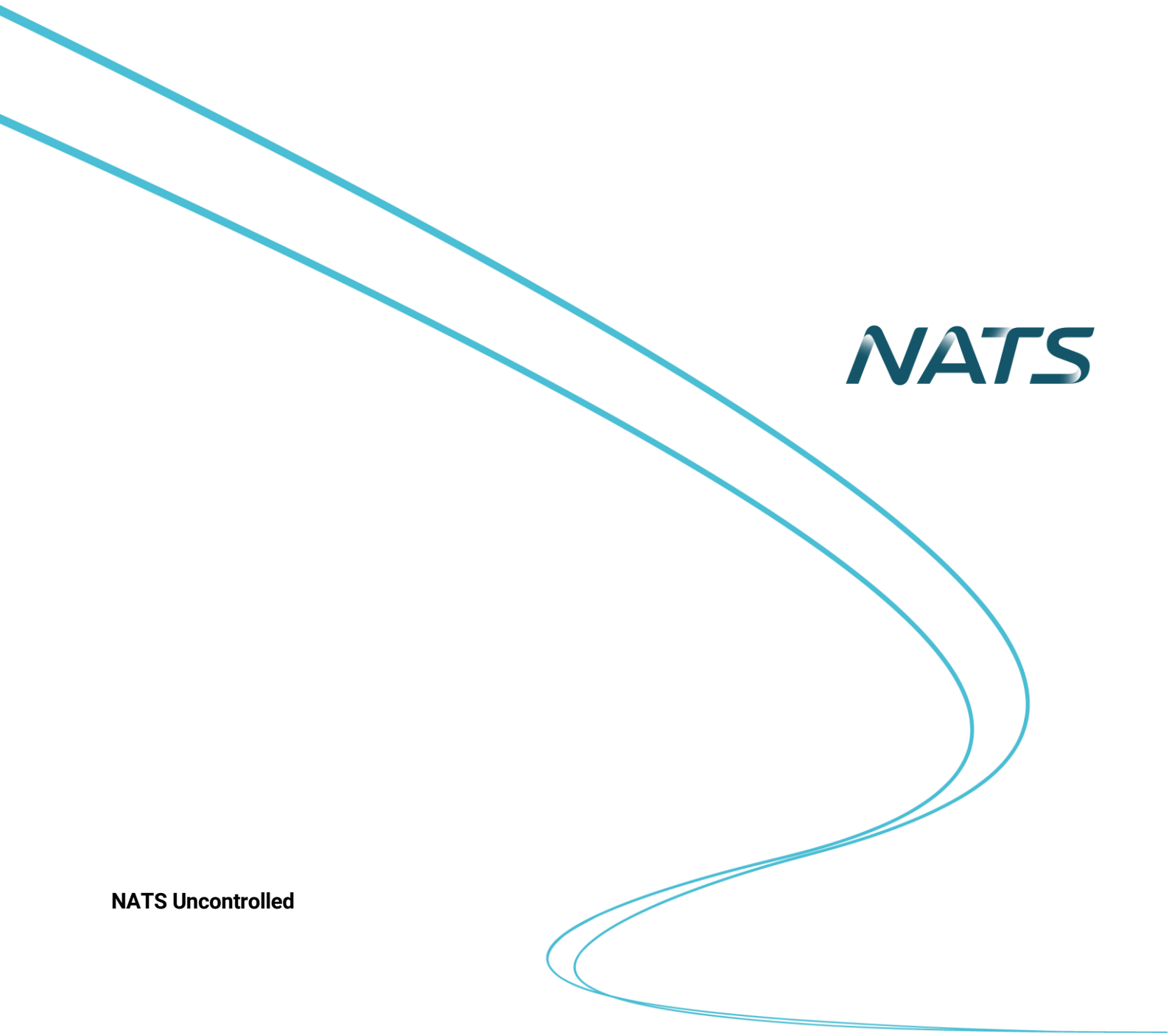
Prestwick Lower Airspace Systemisation (PLAS) Deployment 5 (ScTMA) / FASI Scotland Airspace Development

Stage 1 Assess Briefing: Record of Agreement

13th November 2017, CAA House, Kingsway, London

Issue 1.0



NATS

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Contents

1. Introduction

1.1 This note is a record of the CAP1520 Stage 1 "Assess" briefing for the NATS Prestwick Lower Airspace Systemisation (PLAS) Deployment 5 (ScTMA) airspace change proposal (ACP). This document forms part of the document set required to be submitted for the "Assess" Gateway" in accordance with the requirements of the CAP1520 airspace change process.

1.2 The content of this record, and the CAA's agreement to the proposed content of the ACP will form part of the evidence required to evaluate whether the project is viable. Hence it should be stressed that at this stage the decision to proceed with the project has not been taken. If NATS does intend to proceed a separate "Intention to Proceed" letter will be submitted to the CAA in due course.

1.3 Should any of the elements of this document change significantly as the plans/processes develop, NATS will provide the rationale for change to SARG and seek further agreement in principle for the revisions.

2. Background

2.1 The benefits being sought by the PLAS airspace development overall are summarised below. The changes in the ScTMA will contribute positively towards these benefits.

2.2 *Safety Benefit*:

- All Units: to ensure that the overall ATS provided remains "at least as safe as" prior to the implementation of this airspace development. The Project will aim to deliver safety benefits where possible.
- 7% reduction in conflict alerts + overall improvement in safety.
- Systemisation to reduce controller/pilot workload.

2.3 *Capacity Benefit*:

- 5% increase overall network airspace capacity to accommodate projected traffic demand at least to 2025. (Note the expected usable life of the airspace is expected to be considerably longer, before any further large scale change is anticipated.)
- Compliance with the Future Airspace Strategy through the provision of PBN routes, SIDs & STARs which facilitate Continuous Climb Departures and Continuous Descents, Flexible Use of Airspace (FUA) and simplified boundaries between controlled and uncontrolled airspace.
- Systemisation to reduce controller/pilot workload.

2.4 *Environmental Benefit*:

- CO_2 saving target of 105,000 tonnes pa.
- Noise mitigation of impact of over-flights below 7000ft.

2.5 Review of CAS

- Release controlled airspace where CCO and CDO allow.

2.6 Scope

- ScTMA re-design to accommodate airports' proposals – including procedurally deconflicted arrivals and departures for PH, PF & PK
- Upgrade all SIDs and STARs in ScTMA to RNAV1
- Providing 3NM separation capability below FL285, including 3nm radar separation at interface between airports/PC
- Route improvements to provide safety and environmental benefits
- Changes to the extent of CAS, review of existing airspace bases/classification, raising base levels where possible, review of volumes of Class E airspace.
- Interface with FRA (2020) and harmonization with iTEC (currently used for sectors >FL255).

2.7 Changes in the ScTMA region are planned to include:

- EGPH/PF arrivals and departures from/to east (SAB/NATEB).
- Additional Class D CAS to the east of the EGPH CTA & Scottish TMA to facilitate new route(s) to the east of the EDIBO hold.
- Dual track structure on Y96
- Three track inbound route structure from the south serving EGPH/PF,
- Three track structure going southbound from EGPF

Key messages:

2.8 The following key messages have been identified and will underpin all communications with regard to this project:

- Safety is always NATS' first priority. We would never introduce an airspace change unless we were convinced it was safe to do so.
- NATS is required, under our licence, to provide capacity to meet reasonable growth in air traffic. Airspace developments are subject to the requirement of the CAA Airspace Change process which includes consultation with stakeholders.
- Airspace changes are needed to enhance the safety and efficiency of air traffic control in the face of sustained growth in the aviation industry and to minimise future delays.
- NATS takes environmental considerations very seriously. The PLAS development aims to utilise procedures for minimising the environmental impact of aviation growth.

3. SARG/DFT Design Requirements

3.1 An outline of the generic design aims as relating to the SARG/DfT requirements that NATS considers for all ACPs is given below, including those relating specifically to environmental aspects. Those which can be applied to the PLAS development are highlighted in **bold**.

3.2 *SARG/DfT design aims*:

a) To design routes based on RNAV1.

b) To ensure that designs are consistent with Government policy (e.g. Air Transport White Paper/Review).

c) Runway development: where applicable accommodate future growth due to proposed runway expansion projects.

3.3 *Environmental design aims*:

Where practical, within operational and safety constraints:

a) enable CDAs
b) minimise track mileage
c) allow more efficient flight profiles (i.e. clear climbs/descents on separated tracks)
d) minimise population over-flown
e) minimise exposure of new populations to noise and visual impacts
f) minimise low level over-flight of AONBs, National Parks and other tranquil areas

3.4 These aims are aspirational in so much that it may not be possible to achieve all aims within one design. The final design will hence reflect a balance between competing requirements (e.g. avoiding population may only be possible with additional track mileage). NATS will seek to demonstrate this balanced approach to achieving all the design aims within the consultation documents and ACP.

4. NATS Stakeholder Engagement

4.1 As part of the design process NATS has been engaging with key aviation stakeholders (e.g. airlines, airports, MoD and GA) through a number of meetings and through simulation participation.

5. NATS Formal Consultation Plan

5.1 Formal consultation for the ScTMA (PLAS deployment 5) is planned to commence in April 2018. This will comprise a single 12 week consultation.

5.2 Whilst the specific form of the consultation is still being developed, there are generic elements which are described below.

Consultation Objective

5.3 The purpose of consultation is to attain or confirm views and opinions about the potential impact of a particular Airspace Change Proposal. NATS will design the airspace in line with current government policy[1] unless there is a clear, justified remit across affected stakeholders to do differently. Consultees therefore have a crucial role in providing relevant and timely feedback to the Change Sponsor in the form of their views and opinions on the impact of a particular Airspace Change Proposal.

[1] Department For Transport, Air Navigation Guidance 2017 (Oct 2017)

5.4 In the event of consultation generating a clear and justified remit for a design that does not meet the government guidance (for example one leading to dispersal rather than concentration) then NATS will seek confirmation from the CAA that any such deviation is appropriate before submitting the ACP

5.5 Experience has shown that those that perceive a potential disbenefit are more likely to respond to consultation than those that would potentially benefit; therefore consultation response is not a reliable measure of the relative benefit or disbenefit of a proposal. Hence the aim of consultation is to collect information/requirements to consider in the on-going design process, rather than being a voting process to determine popularity.

Stakeholder Identification for Formal Consultation

5.6 The formal consultation exercise is proposed to include distribution by email of consultation material to the following stakeholder groups.

Under the proposed airspace, subject to change below FL195:

a) All AONBs/National Parks.
b) District & Borough councils who have an AONB within their district.
c) MPs, MSPs, MEPs
d) NATMAC.

Where proposed changes are below 7000ft agl **(not applicable for this change)**, the above plus:

e) All affected County, District, Borough Councils and unitary authorities
f) Airport Operators and consultative committees for all affected airports
g) National Environmental bodies (Countryside Agency, English Heritage, NSCA, National Trust, CPRE etc).
h) Airlines operating from the Group 1 & 2 airfields

Airports will be responsible for design & consultation of changes to lower altitude route structures. These will include all routes below 6,000ft, but the exact design interface points (which will also dictate the limits of consultation responsibility taken by the airport) have been agreed between NATS and each individual airport. These transfer points may be above 6,000ft dependent on local environmental and design requirements.

Consultation briefings

5.7 Individual briefings will be offered to the following groups:

- Affected District/Borough Councils and unitary authorities having a National Park or AONB within their jurisdiction.
- All affected MPs and MSPs.
- Airlines/NATMAC/Military

5.8 Briefings will **not** be offered to:

- District, Borough Councils beneath STARs, SIDs only flown in radio fail situations, or routes changing to follow existing swathes.
- Other special interest groups (e.g. national bodies or pressure groups focusing on single issues).
- Members of the public.

5.9 NATS has not been advised of any additional stakeholder groups that have registered an interest in this airspace change directly to the CAA. Hence if there are any such groups the CAA should notify NATS of their details.

Consultation Documents

5.10 The consultation materials will consist of a hierarchy of materials as follows

Top tier – Summary information aimed at providing information on:

- Am I affected, and if so, am I interested?

To include press release, media launch, website with clickable map, executive summaries on web with documentation.

Middle tier – Main consultation document set aimed at providing information on:

- How might it affect me, my community, my business?
- Do I have any relevant information to feed back?

To include justification, swathe maps, environmental analysis results, aviation maps, FAQs.

Third tier – Technical documents aimed at providing information on how we came to our conclusions:

To include environmental analysis reports, tables of options considered, technical FAQs. These will be in technical language presented for specialists rather than the layman.

5.11 The consultation material will be published via dedicated web pages.

5.12 The maps for local stakeholders will show

- swathes representing the widest potential spread and worst- case heights for the potential route alignments that would fit the proposed concept[2].
- Design options which have been considered.
- Relative assessment of these options against design principles
- The preferred design option

Height, traffic numbers and noise information, will be provided to allow stakeholders to determine the potential effect on the area of interest. The following text will be provided as guidance for the lay-public to interpret the maps.

[2] The 'widest potential spread' and 'worst case height' is used here in the context of standard operations. Track plots will occasionally show flights following unpredictable paths due to unusual circumstances such as avoiding action or weather avoidance. The potential for aircraft to follow unusual tracks is inherently unpredictable. Furthermore, the possibility of aircraft following such unpredictable tracks exists today and would remain unchanged as the result of the proposal, and so is not a 'change' that we are consulting on.

"The noise and visual impact experienced at a given location will depend on where the route is positioned within the consultation swathe; high concentrations of traffic would be directly overhead only a small proportion of the overall area. We are asking you to consider that the routes in question could be positioned anywhere within the consultation swathe, and to be mindful therefore that anywhere within the consultation swathe has the potential for noise and visual impact. This consultation concerns aircraft above 7000ft agl. Aircraft at higher altitudes can be seen across a wide area either side of routes."

Information on the scale of potential impact will be presented alongside or within the maps, describing:

- The potential number of aircraft that would fly on the route and which may be overhead subject to the final route position within the consultation swathe
- The altitude of these aircraft

With this information stakeholders can identify whether the potential impact is significant (i.e. the potential number of aircraft overhead, and the resultant noise and visual intrusion).

5.13 The website and consultation document will include a comprehensive set of questions & answers to frequently asked questions. Where new, relevant, questions arise during the consultation period these will be added to the FAQs.

5.14 The consultation document will be produced in English only.

5.15 SARG will be requested to review and comment on the consultation material prior to publication (Consult Gateway).

5.16 It is important to ensure that stakeholders are aware of the scope of the consultation, so that the feedback provided has the maximum possibility of affecting the final design. This necessarily involves highlighting issues that will be beyond the scope of the consultation, such as:

a) Government policy (e.g. tranquillity versus population, targets to reducing CO_2).
b) CAA Policy (e.g. use of P-RNAV, design guidance)
c) Traffic growth (e.g. whether continued growth is good or the effect of the recent downturn).
d) Airport expansion/Air Transport White Paper.
e) Runway alternation.
f) Analysis methodologies (we are not consulting on the appropriateness of analysis techniques or models, e.g. ANCON noise modelling system).[3]

Consultation Response Management

5.17 The feedback channels for consultees will be as follows:

[3] An ACP must not contain "any aspects" that have not been consulted upon. " Any aspects" in this sense is to be interpreted as meaning there should be no aspects of the proposed designs in the ACP that have not been consulted upon, i.e. all changing routes, holds and CAS in the ACP must have been consulted upon.

- Web based questionnaire hosted on Citizen Space.
- Postal address to be provided for postal response.

5.18 All responses will be logged and categorised according to 'theme'. Consultation responses will be analysed and new information contained within responses will be logged.

5.19 Once the consultation period has closed, a feedback document will be published. The feedback document will give statistical analysis of the responses and summarise all the themes and the NATS's response to any issues raised. The feedback document will be available for download via the NATS website (and the CAA portal). Any new requirements identified will be considered in the on-going design process. The ACP will detail the design being submitted and make reference to changes that have been made to take account of consultation feedback.

5.20 All responses to the consultation exercise will be provided to SARG in full as part of the ACP documentation set. The CAA will have access to responses submitted through Citizen Space.

NATS acknowledgement & replies

5.21 NATS will use the following guidelines for acknowledgement and replies to questions raised by consultees during the consultation:

a) Online responses to the consultation will be automatically acknowledged.
b) Postal respondents will not be acknowledged.
c) Where we consider that additional information is necessary for respondents to provide their representations, whether identified through a question from a consultee or comes to our attention through other channels, we will publish the additional information in the FAQs section of the consultation website, so that the information is available to everyone. Potentially affected stakeholders will be notified if additional information is published including, if applicable, any consultee that identified the need for additional information in their response.

Late Reponses

5.22 Late responses will be logged and stored but not analysed. In individual cases NATS may consider there to be sufficient justification to accept and respond to late feedback, however this will be at NATS' discretion.

a) Responses considered 'late' will be:
   - Any response where the respondent had dated the letter after end of consultation, or
   - Any postal response received more than 7 days after the end of the consultation.
b) The web response facility will be closed at the end of the consultation.

6. Environmental Analysis

6.1 An overview of the proposed environmental analysis for PLAS was presented. Information to enable an assessment of the environmental impact of the change will be

presented in the consultation documents and ACP. In order to enable stakeholders to establish the potential impact of the changes on their area, this information will include:

a) Maps showing the swathes of airspace within which aircraft following new procedures may be seen.
b) Proposed preferred route options
c) Forecast traffic data for the proposed airspace.
d) Emissions analysis. An emissions and fuel burn comparison will be undertaken comparing routes for each major traffic flow before and after the change. A system-wide assessment of the emissions and fuel burn for traffic using the existing and proposed airspace will also be provided;
e) Note: Noise analysis as detailed in the Annex A tables below is not required for this ACP.

Note that a detailed list of the environmental requirements and the NATS proposal for fulfilling them is provided at Annex A.

6.2 It was agreed that local air quality analysis is not required for this ACP. 1,000ft agl is accepted by the SARG as the limit of the mixing height for emissions, therefore changes to flight profiles above this height are unlikely to have any significant affect on Local Air Quality (LAQ) on the ground (note that the Dft guidance states that LAQ is not an issue for airspace change unless the changes are below 1000ft). For this reason, since the PLAS project does not anticipate changing any flight profiles below 1,000ft agl it was agreed that no assessment of LAQ is required.

7. Accountability

7.1 The airports (EGPH, EGPF & EGPK) are in the process of updating their existing routes to be compliant with modern Performance Based Navigation (PBN) standards. All three airports are proposing new routes based on the RNAV1 navigation standard. The enroute network proposed by NATS will also comprise RNAV1 routes.

7.2 The NATS' airspace change development will follow the CAP1520 airspace change process.

7.3 Wherever possible airport intentions for low level changes have been developed to be independent of PLAS (ie low level changes *could* knit into either the existing or future network). However the proposed changes to the ScTMA route network will ensure that the most efficient use is made of the airspace and maximise the benefits.

8. Implementation

8.1 The target implementation date is 28/02/2019, with simultaneous implementation of the proposed network changes and those of the three airports.

9. MoD Briefing

9.1 An initial brief to MoD DAATM SO1/SO2 was given on 11th and 27th of November 2015. MoD were updated on 7 November 2017. Engagement with MoD is ongoing.

10. Clarifications Discussed During the Briefing

10.1 Route separations and CAS containment. The details of the route separations (in accordance with CAP1385) and CAS containment requirements will be explored during the design option assessment stage. Route separation will also take into consideration the requirements of interfaces with higher level sectors which use 5nm radar separation.

10.2 Gateway Assessment dates. Assuming that the final airspace change process is as described in CAP1520, the PLAS ScTMA project will aim to submit the required documentation for the following Gateway Assessments dates:

Assessment Gateway	Meeting date	Submission deadline	Required documentation
Define	26/01/2018	12/01/2018	Statement of needs Minutes from assessment meeting Design principles Engagement activity summary
Develop & Assess	23/02/2018	09/02/2018	Options and design principles evaluation. Options appraisal and safety assessment summary
Consult	23/03/2018	09/03/2018	Draft consultation strategy Draft consultation documents Full options appraisal

The target for ACP submission is 27/07/2018.

10.3 Due to the altitude of the changes proposed (>7000ft), in accordance with the ANG 2017 National Parks, Forest Parks and AONBs are not proposed to be consulted.

11. Environmental Requirements

11.1 All requirements for environmental assessment as outlined in CAP1520 Appendix B will be undertaken, as appropriate to the Level of the change. This ACP is concerned with proposed route changes above 7000ft agl. As such it will be categorised as Level 2A.