

15 February 2016
EIR Reference: E0002638

Dear XXXX

I am writing in respect of your recent request, contained within your letter of 14 January addressed to Andrew Haines, for the release of information held by the Civil Aviation Authority (CAA).

Your request:

We also request the following documents:

- *Agreed trial justification statement;*
- *Agreed trial scope and objectives;*
- *Approved trial initiation plan;*
- *Route spacing/separation assurance for TUTUR.*

Our response:

Having considered your request in line with the provisions of the Environmental Information Regulations 2004, we are able to provide the information below.

The first three items you have requested can be found in attachment 1. These are sections within the attachment itself as opposed to standalone documents. The contents follow the format specified in the CAA's '[Policy for the Conduct of Operational Airspace Trials](#)' and trial sponsors will now be required to publish this information to increase transparency of this process.

Please note that we have redacted personal data from this document in accordance with Regulation 13 of the EIR as to release the information would be unfair to the individuals concerned and would therefore contravene the first data protection principle that personal data shall be processed fairly and lawfully. A copy of this exemption can be found below.

The 'Route spacing/separation assurance for TUTUR' actually forms part of item 7 in your original request of 10 September 2015, 'Draft Acceptable Compliance Distance from DER for Divergence for 1 Minute Departure Intervals v1'. As such its disclosure is already being re-considered as part of the internal review of that request which is being conducted separately.

If you are not satisfied with how we have dealt with your request in the first instance you should approach the CAA in writing at:-

Caroline Chalk
Head of External Information Services
Civil Aviation Authority
Aviation House
Gatwick Airport South
Gatwick
RH6 0YR

caroline.chalk@caa.co.uk

The CAA has a formal internal review process for dealing with appeals or complaints in connection with requests under the Environmental Information Regulations. The key steps in this process are set in the attachment.

Should you remain dissatisfied with the outcome you have a right to appeal against the decision by contacting the Information Commissioner at:-

Information Commissioner's Office
FOI/EIR Complaints Resolution
Wycliffe House
Water Lane
Wilmslow
SK9 5AF

<https://ico.org.uk/concerns/>

If you wish to request further information from the CAA, please use the form on the CAA website at <http://publicapps.caa.co.uk/modalapplication.aspx?appid=24>.

Yours sincerely

A handwritten signature in black ink, appearing to read 'M Stevens'.

Mark Stevens
External Response Manager

CAA INTERNAL REVIEW & COMPLAINTS PROCEDURE

- The original case to which the appeal or complaint relates is identified and the case file is made available;
- The appeal or complaint is allocated to an Appeal Manager, the appeal is acknowledged and the details of the Appeal Manager are provided to the applicant;
- The Appeal Manager reviews the case to understand the nature of the appeal or complaint, reviews the actions and decisions taken in connection with the original case and takes account of any new information that may have been received. This will typically require contact with those persons involved in the original case and consultation with the CAA Legal Department;
- The Appeal Manager concludes the review and, after consultation with those involved with the case, and with the CAA Legal Department, agrees on the course of action to be taken;
- The Appeal Manager prepares the necessary response and collates any information to be provided to the applicant;
- The response and any necessary information is sent to the applicant, together with information about further rights of appeal to the Information Commissioners Office, including full contact details.

Environmental Information Regulations – Regulations 13

(1) To the extent that the information requested includes personal data of which the applicant is not the data subject and as respects which either the first or second condition below is satisfied, a public authority shall not disclose the personal data.

(2) The first condition is—

(a) in a case where the information falls within any of paragraphs (a) to (d) of the definition of “data” in section 1(1) of the Data Protection Act 1998, that the disclosure of the information to a member of the public otherwise than under these Regulations would contravene—

(i) any of the data protection principles; or

(ii) section 10 of that Act (right to prevent processing likely to cause damage or distress) and in all the circumstances of the case, the public interest in not disclosing the information outweighs the public interest in disclosing it; and

(b) in any other case, that the disclosure of the information to a member of the public otherwise than under these Regulations would contravene any of the data protection principles if the exemptions in section 33A(1) of the Data Protection Act 1998(1) (which relate to manual data held by public authorities) were disregarded.

(3) The second condition is that by virtue of any provision of Part IV of the Data Protection Act 1998 the information is exempt from section 7(1) of that Act and, in all the circumstances of the case, the public interest in not disclosing the information outweighs the public interest in disclosing it.

(4) In determining whether anything done before 24th October 2007 would contravene any of the data protection principles, the exemptions in Part III of Schedule 8 to the Data Protection Act 1998 shall be disregarded.

(5) For the purposes of this regulation a public authority may respond to a request by neither confirming nor denying whether such information exists and is held by the public authority, whether or not it holds such information, to the extent that—

(a) the giving to a member of the public of the confirmation or denial would contravene any of the data protection principles or section 10 of the Data Protection Act 1998 or would do so if the exemptions in section 33A(1) of that Act were disregarded; or

(b) by virtue of any provision of Part IV of the Data Protection Act 1998, the information is exempt from section 7(1)(a) of that Act.

Information to support the implementation of an airspace trial

TUTUR (RNAV1) SID to a Flight Level Trial

Edinburgh Airport and NATS, 2015/16

Part of the UK FAS Deployment Plan

Document Control

Title	TUTUR (RNAV1) SID to a Flight Level Trial
Purpose	This documents sets out the information required by the CAA to support the design and implementation of an operational airspace trial of a SID to a Flight Level from Edinburgh Airport.
Owner	The FAS Scottish Development and Deployment Group
Authors	NATS Services, [REDACTED] (FAS Programme Mgmt.)
Version	Final
Date	05/08/2014

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1. Introduction

1. Document purpose

This document sets out the information required by the UK Civil Aviation Authority (CAA) to support the design and implementation of an operational airspace trial. It includes details of the agreement with the CAA that an airspace trial is necessary and feasible, the scope and objectives of the trial and how the trial will be implemented, managed and concluded. The information is provided in accordance with Civil Aviation Publication (CAP) 670 (ATS Safety Requirements) and is supported by a best practice process developed in conjunction with the Future Airspace Strategy Industry Implementation Group (FASIIG), replicated in Annex A.

2. Background

The trial is being progressed as a joint project between Edinburgh Airport, NATS and the CAA as part of the Future Airspace Strategy (FAS) Deployment initiative, to support the creation of national standards and demonstrate the feasibility of a new operational procedure.

The Trial Owner/Sponsor is Edinburgh Airport Limited.

The CAA's Airspace Regulation team assigned [REDACTED] initially as Case Officer to the trial to act as the main regulatory point of contact. This responsibility was subsequently notified to the Sponsor by CAA as having been transferred to [REDACTED]. The Trial Sponsors and Case Officer have agreed to follow the best practice process developed by FASIIG to gather the information needed to approve the trial.

2. Justification

1. Description of the concept(s) to be trialed

This section describes the unproven [or partially proven] nature of the concept to be trialed e.g. the design of airport SIDs that end at a Flight Level (FL) in a complex terminal environment, using an RNAV1 navigational standard has not been tested as part of the UK ATM System... etc.

While the majority of departing traffic from Edinburgh achieves a continuous climb, this requires ATC intervention not least of all in respect of the initial clearance to climb above the transition altitude; 6000' (QNH).

The trial SID procedure will allow airlines (with RNAV1 capable fleet) to flight plan the unrestricted initial climb to the agreed trial SID level (FL130) providing opportunity for fuel saving, and reduced controller interaction.

There is no current SID procedure within a complex TMA operation, such as the Scottish TMA which enables a continuous climb through the transition altitude without tactical ATC intervention. This increases ATC workload and reduces network and flight efficiency and still requires a minimum 2 minute interval to be established between successive departures from Edinburgh. This trial will prove the concept of SID design and implementation with continuous climb of a SID procedure to a Flight Level, while introducing a divergence between routes such that a reduced 1 minute departure interval can also be achieved.

It was, therefore, determined that a new lateral track over the ground would be required, in order to both:

- Make use of a portion of the TMA airspace within which a continuous climb could be accommodated (without the need for tactical intervention from ATC) and also
- To introduce a divergence (of at least 45 degrees) from other, existing, SID routes as soon as practicable (and no later than 3nm from DER) after departure.

2. Contribution of the trial to the modernisation of UK ATM and/or FAS

The ability to design SIDs to a FL is a key enabler for the implementation of continuous climb operations in as part of a systemised terminal airspace operation that is Identified in FAS as a major benefits driver.

3. Scope and Objectives

1. Trial Objectives

This section sets out the specific objectives of the trial and includes a statement of their agreement with the CAA.

The objective of the trial is to prove the concept of SID design and implementation with continuous climb of an RNAV1 SID procedure to a Flight Level within the current Scottish TMA operation that allows for the use of reduced 1 minute minimum departure intervals – benefiting airlines in flight plannable continuous climb and reduced ground delay.

2. Technical Scope

This section describes the technical scope of the procedure(s) to be trialed.

The Procedure chosen is a new RNAV1 SID route (known as TUTUR 1C), for use by all jet aircraft that would normally be allocated a TLA 6C conventional SID (i.e. for Jet aircraft routing via Airway L602 from Runway 24 at Edinburgh, climbing continuously to a flight level above the Transition Altitude (currently designed at FL130))

3. Duration

This section sets out the duration of the trial and expected start and end dates. The exact duration of the trial may be difficult to predict due to operational factors. This section also describes the hours of operation for the trial.

The trial is planned be operated H24 and to start on 25th June 2015 until 24th December 2015 (a period of 26 weeks/6months)

Should the trial meet the success criteria set out in section 2.6, the trial sponsor (Edinburgh Airport Ltd.) may include the procedure as an option within an Airspace Change Proposal (ACP) for permanent adoption in line with CAP 724/725 and, as detailed in DfT Air Navigation Guidance to CAA, may consider request a 'reasonable extension' to the trial period while the CAP725 process is followed.

4. Participants

This section sets out the organisations participating in the trial and their associated role and responsibilities.



The trial is planned to include all operators Jet A/C routing via L602 that have flight planned RNAV1 status.

Allocation of the trial SID will be automated via NAS and aircrew that are 'non-RNAV due equipment' shall be manually allocated a conventional TLA 6C departure.

AIP Supplement confirms that it is the airlines responsibility to ensure that all suitably equipped aircraft have the 'TUTUR 1C' RNAV1 SID available to crews for this reason

NATS (Services) at Edinburgh Airport will manage the implementation of the trial on behalf of the Sponsor (Edinburgh Airport Ltd) and shall, in coordination with NATS Prestwick, operate the trial in accordance with the published AIP Supplement effective dates/times, by reference to local Temporary Operating Instructions (TOIs) and shall have the authority to agree temporary/permanent suspension of the trial for operational or safety reasons

5. Impacted Stakeholders

This section describes the key stakeholder groups that are expected to be impacted by the trial and how.

Some trials [or aspects of] may have unavoidable environmental impacts. The Trial Sponsors have sort to mitigate the impact as far as practicable by []. The residual level of environmental impact will inform the decision on the level of engagement required prior to implementation, to be agreed with the CAA.

For trials at the airports designated in accordance with section 78 of the Civil Aviation Act 1982, the sponsor will be required to brief the Department for Transport.

AVIATION STAKEHOLDERS:

- **ATC**

The trial route is wholly contained within the lateral limits of Edinburgh and Prestwick Centre Galloway North/TALLA (North/South) Sector airspace.

System adaptation changes are required in both NATS Edinburgh (EFPS) and NATS Prestwick (EFD and NAS) in order to handle the flight plan/route allocation and Controller Working Position flight data displays

The route joins L602 by means of a temporary DCT route to HAVEN from new SID Termination points TUTUR.

- **AIRLINES**

Jet Aircraft Operators are the focus of this trial (as it is intended to provide flight planning fuel benefits and reduced ground delay) and (through a lead carrier) have played a significant part in the design process, ensuring that right turn out required to place the flight into a position that can allow a continuous published climb to FL130 is an acceptable trade-off.

NON Aviation Stakeholders

A list of stakeholders has been compiled by the sponsor (Edinburgh Airport Ltd) and supplied to the CAA SARG Case Officer Separately.

The Route has been designed in line with the principles communicated to CAA SARG at the Framework Briefing (November 2014) such that it, once it diverges from current conventional SID routes from RWY 24, it follows the track of the M8 before taking as short a route as possible (avoiding populated areas in line with DfT Air Navigation Guidance) to open water. The published trial route then remains over water until approaching FL130

6. Success Criteria

This section describes the success criteria for the trial, including any measures, evidence, data or KPIs that will be gathered in support.

The trial SID route should enable:

A 1 minute departure interval to be applied against GOSAM 1C SID route from RWY24 (as the divergence is greater than 45degrees) as early as it is practicable to design the right turn of the trial SID (2.3nm DER)

A continuous climb without ATC intervention to FL130 and no lateral intervention by ATC until above transition altitude (6000'). This should be possible without a negative impact* on other traffic flows within the Scottish TMA sectors and Glasgow and Edinburgh Airport Delegated Local Areas.

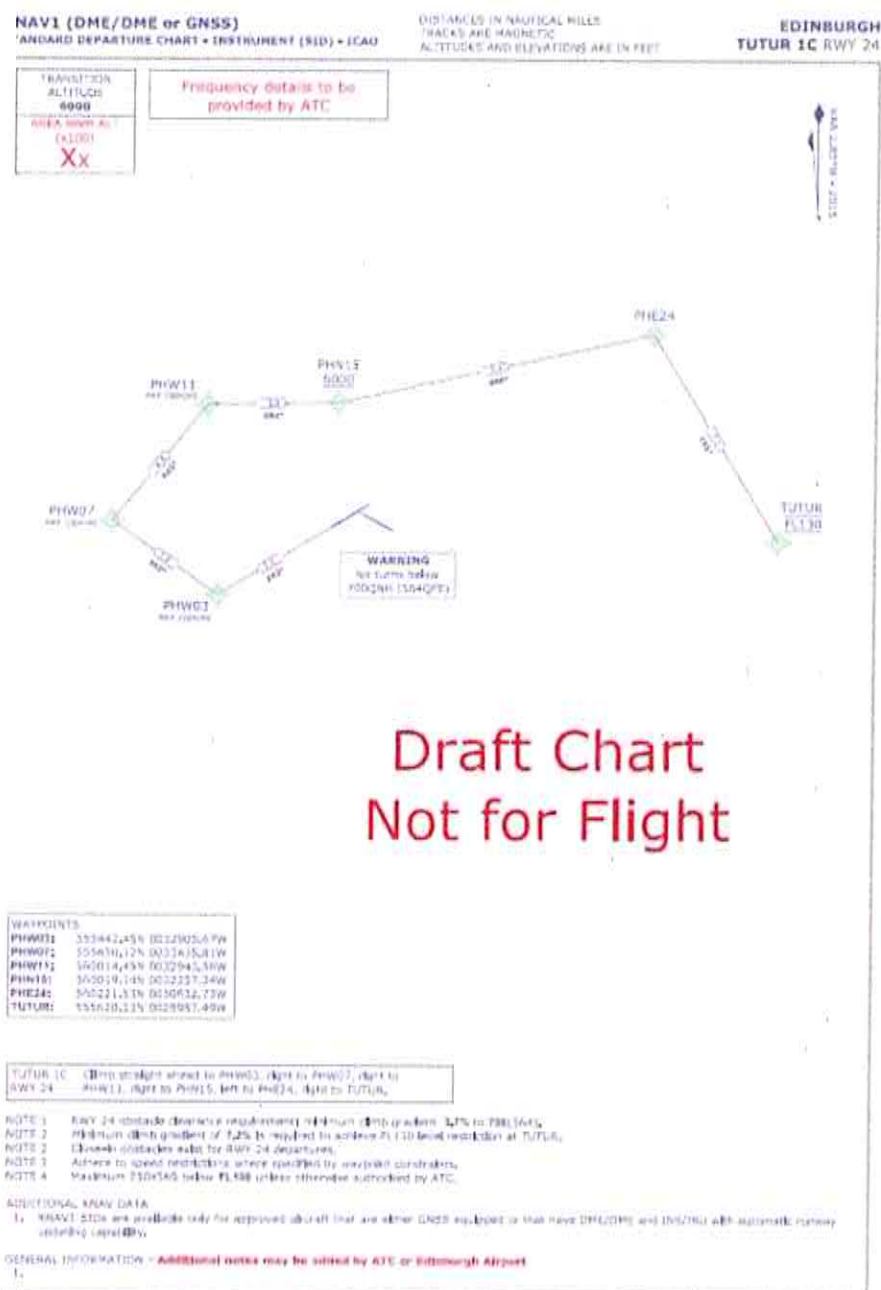
*Examples of such negative impacts (but not an exhaustive list) are:

- IFR overflights should not routinely require extended routing,
- Holding traffic at TWEED/LANAK should not be precluded from entering the appropriate arrival sequences to enable the traffic on the Edinburgh TUTUR 1C SID to fly the route.
- Likewise, if it is necessary to step climb the TUTUR 1C SID traffic before reaching FL130 on a regular basis, this will be considered to be unsuccessful).

Track keeping within the RNAV1 standard.

4. Initiation Plan

1. Procedure Design and Promulgation Plan



The above draft TUTUR1C procedure was produced as a result of a planning workshop attended by NATS Edinburgh, NATS Prestwick Centre and EasyJet Flight Deck participation.

The initial design concept (discussed with CAA at Framework briefing in November 2014) was further developed on the basis of Lead Carrier Desk top testing and additional ATC workshops, such that the initial right turn was widened and the SE leg, passing overhead the airport, modified to remain over water climbing to FL130

See separate Procedure Design Report

2. Briefing Plan for Trial Participants

The trial has been developed in cooperation with NATS Edinburgh, NATS Prestwick Centre and Edinburgh based carriers, including EasyJet, and communicated via Edinburgh FLOPSC the SDDG/FASIIG and via formal AIS Supplement publication (double cycle lead in)

Military OAT and General Aviation is unaffected by this trial

3. Governance, Reporting and Assurance Plan

Edinburgh Airport (as the sponsor) shall be responsible for governance of the overall trial, though NATS (Services) Edinburgh and NATS Prestwick have been delegated responsibility for day to day operation (and suspension, where required, for operational reasons) of the trial.

Edinburgh Airport shall monitor progress of the trial and coordinate with NATS and CAA SARG as applicable throughout

EAL is responsible for communicating any stakeholder issues (aviation or non-aviation) to NATS and CAA SARG as appropriate throughout the trial period

A Review of the trial shall be arranged at least 1 month prior to planned cessation date to determine if the TUTUR 1C trial route is to be included in a permanent ACP process by EAL, such that NATS is able to plan removal/reversion of the system adaptations as near as possible to cessation date (assuming that the trial route is NOT being carried forward into a permanent ACP by EAL) and CAA SARG can determine if an extension is to be granted

Note: the system adaptations can be left dormant within NATS systems (similar to a temporary suspension), so this review period is intended to enable any final data to be collected, analysed and agreed as required before the expiry of the trial.

4. External Stakeholder Engagement Plan

See stakeholder engagement plan, supplied separately by EAL.

5. Data Collection Plan

Track keeping data will be recorded throughout the trial period, using the Airport's Noise and Track Keeping System and produced to confirm both vertical and lateral profiles flown on TUTUR1C trial SID

Departure interval analysis will be produced from EFPS data files/cross referenced with radar analysis where required.

ATC Comment logs will be available within the Tower and Approach Rooms at Edinburgh (and subject to agreement in NATS Prestwick OPS room) to ensure that operational issues can be logged and monitored. Edinburgh airport is also planning on carrying out noise monitoring along selected points on the new SID route and comparing ambient noise with that during operation of the route by Jet traffic

6. Trial Suspension, Revision, Early Completion or Termination Arrangements

The TUTUR1C SID Trial can be suspended at any point by mutual coordination between ATC Supervisors at NATS Edinburgh Tower and Prestwick Centre for operational reasons(e.g. flight safety reasons, national security, ground stop operations and so on), or on the instruction of the sponsor.

Revisions **cannot** be made to the SID's published profile (lateral or vertical) due to the requirement for 'double AIRAC' lead in for such changes. These type of changes would require the trial to be suspended and a new trial to be agreed.

Should any changes be required in the associated published ATC Temporary Operating Instructions, then this shall be carried out under normal NATS SMS process and may require the temporary suspension and then reinstatement of the published trial SID. NATS ATC WM at Edinburgh Tower shall be responsible for any NOTAM action required in such cases

Should early termination of the trial be required, the sponsor (Edinburgh Airport Ltd) shall be responsible for NOTAM Action and coordination with NATS (Services) and NATS Prestwick

On completion of the trial, the operating procedures shall be reverted to previous conventional TLA 6C SID route and associated ATC operating practices.

Edinburgh Airport Ltd shall coordinate with NATS and CAA SARG as soon as practicable, but no later than 1 month from planned trial completion date, the intention to apply for an extension to the trial as part of its inclusion in a permanent ACP

7. CAP670 Safety Impact Assessment

The intention is to operate the trial on the basis of Temporary Operating Instruction and APSA process, having had the SID design itself reviewed by CAA SARG and Flight Simulation tested at CAE A320 Flight Simulation Facility, in line with separate Flight Validation Plan

8. Transition Plan to make the trial arrangements permanent [if justifiable]

Edinburgh Airport Ltd shall coordinate with NATS and CAA SARG as soon as practicable, but no later than 1 month from planned trial completion date, the intention to apply for an extension to the trial as part of its inclusion in a permanent ACP

Subject to CAA agreement, the transition would be foreseen to be in the form of an extension to trial while ACP process is completed and as such would require continuance of NATS TOI procedures and adaptations, instead of planned reversion

Annex A

CAA process for the implementation of operational airspace trials in line with CAP670 and CAP725 (V1.41):

