Swanwick Airspace Improvement Programme
Airspace Development 3
LAC S21/Jersey/Brest Interface

SAIP AD3
Gateway documentation:
Stage 2 Develop and Assess

Airspace Change Design Options

Redacted

Action	Position	Name	Acknowledged	Date
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Issue 1	Mar 2018	First issue released to SARG.

Contents

1. Introduction

1.1 This document forms part of the document set required in accordance with the requirements of the CAP1616 airspace change process.

1.2 This document aims to provide adequate evidence to satisfy
Stage 2 Develop and Assess Gateway, Step 2A Airspace Change Design Options

1.3 As previously agreed via Stage 1 Gateway Design Principles, the overriding Design Principle of ANSP Agreement means the preferred design concept is the only option agreed between all three ANSPs.

2. Options development – brief history

2.1 This proposal stems from the ongoing work between Ports of Jersey (PoJ) ANSP and French DSNA ANSP, within whose FIR the PoJ exists as a separate entity. The PoJ is the ANSP for the Channel Islands Control Zone (CICZ). Previously within NATS, this work was known as 'FAC Module A', which became 'SAIP AD3' in 2017.

2.2 In July 2015 PoJ submitted a request to modify their CICZ airspace to incorporate new SIDs and STARs, to DSNA, thus starting the development work.

2.3 NATS abuts the FIR boundary of both ANSPs in the vicinity of waypoints LELNA, ORTAC and ORIST. Because the main agreement must be between PoJ and DSNA due to their relationship, NATS is the third party in these conversations, and must adapt UK connectivity to suit their arrangements.

2.4 Work on this was paused for a while in 2017, until on 15th December 2017 PoJ notified NATS that they planned to jointly implement a change with DSNA in November 2018.

2.5 This accelerated the development on the UK (NATS) side of the FIR boundary, based on typical CAP1616 timescales.

2.6 The following sections of this document refer to Baseline (do nothing), Option 1 and Option 2.

3. Baseline (do nothing) description

3.1 The Solent airports are Southampton EGHI and Bournemouth EGHH.
Their traffic flows are mainly controlled by the Solent Radar function provided by NATS Southampton.
The Solent airports do not have SIDs.
The Solent airports have one joint STAR for northbound traffic arriving from the south.
The CICZ airports are Jersey EGJJ, Guernsey EGJB and Alderney EGJA, controlled by PoJ ANSP.
En route south of the FIR boundary, FL200+ by Brest Centre under DSNA ANSP.

3.2 The current arrangement has undesirable built-in confliction points, especially at ORTAC.

3.3 The flows of interest are:

- Solent airports and CICZ airports – these are the flows where the conflictions need to be resolved most often, and are the main priority for this proposal
- Solent departures (not inbound to CICZ)
- Solent arrivals from Brest ACC (not departing CICZ)
- CICZ arrivals from the London TMA
- CICZ arrivals overflying the London TMA
- CICZ departures (not inbound to Solent)

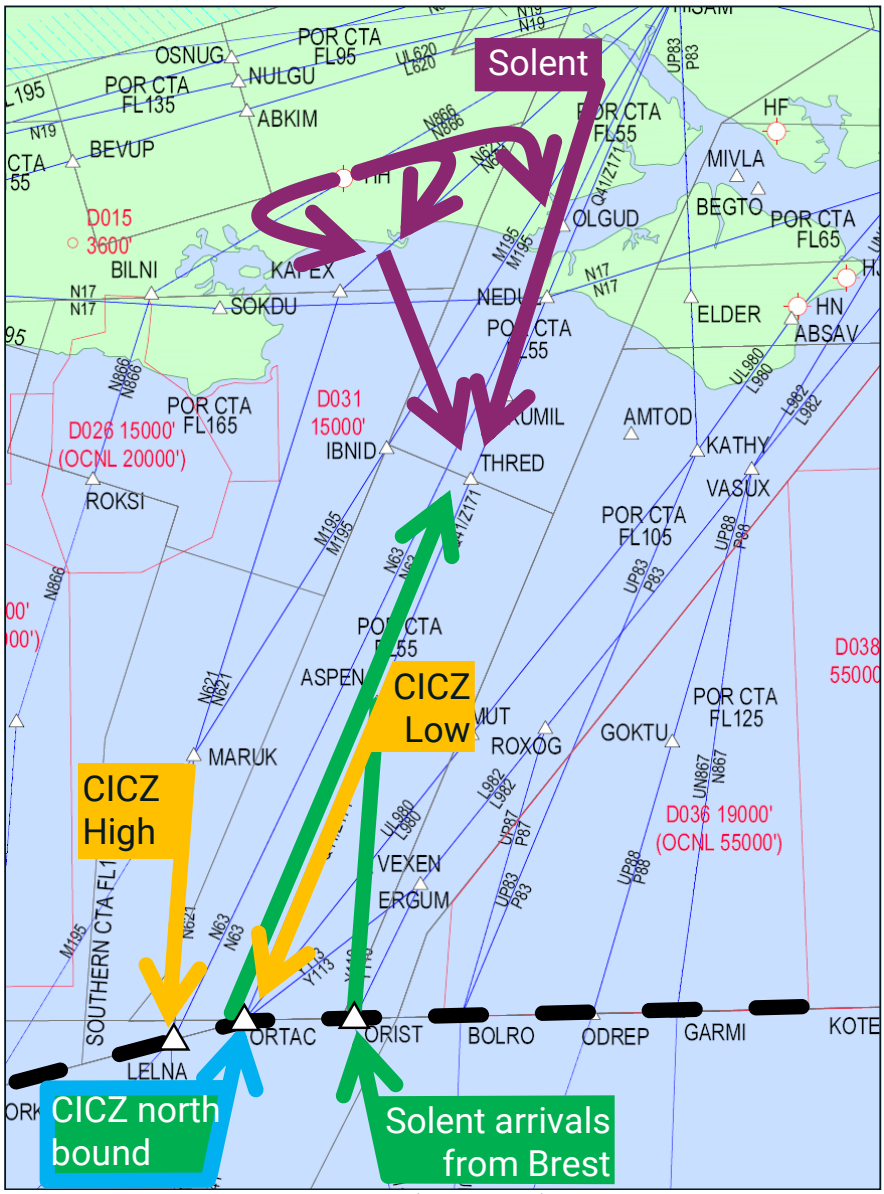

Figure 1 Current network - Baseline (do nothing) flightplanning connectivity with PoJ (CICZ) and France (Brest DSNA)

3.4 Tactical vectoring is required in LAC S21, to manually split the flows, and causes a tactical swathe of Solent departures to head towards THRED and ORTAC, depending on the specific situation at the time. This is not shown in Figure 1; it depends on the Solent airport departure runway, direction of turn out and other factors.

3.5 Climbs and descents are often 'stepped' in nature, requiring controller interactions to minimise levelling.

4. Concept Overview

4.1 The two concept options discussed in this document are based on the desire for the relevant flows to be split on the UK side, by the design of the route network and flightplanning route availability.

4.2 As previously noted, CICZ PoJ and Brest DSNA have agreed SIDs and STARs changing flows at, and south of, the FIR boundary. This requires NATS to take action on the UK side north of the boundary.

4.3 Both concepts would split the relevant flows, in different ways. The main difference between the concepts is the extent of planned systemisation.

5. Option 1 Concept description – Major restructuring of LAC S21 airspace and flows

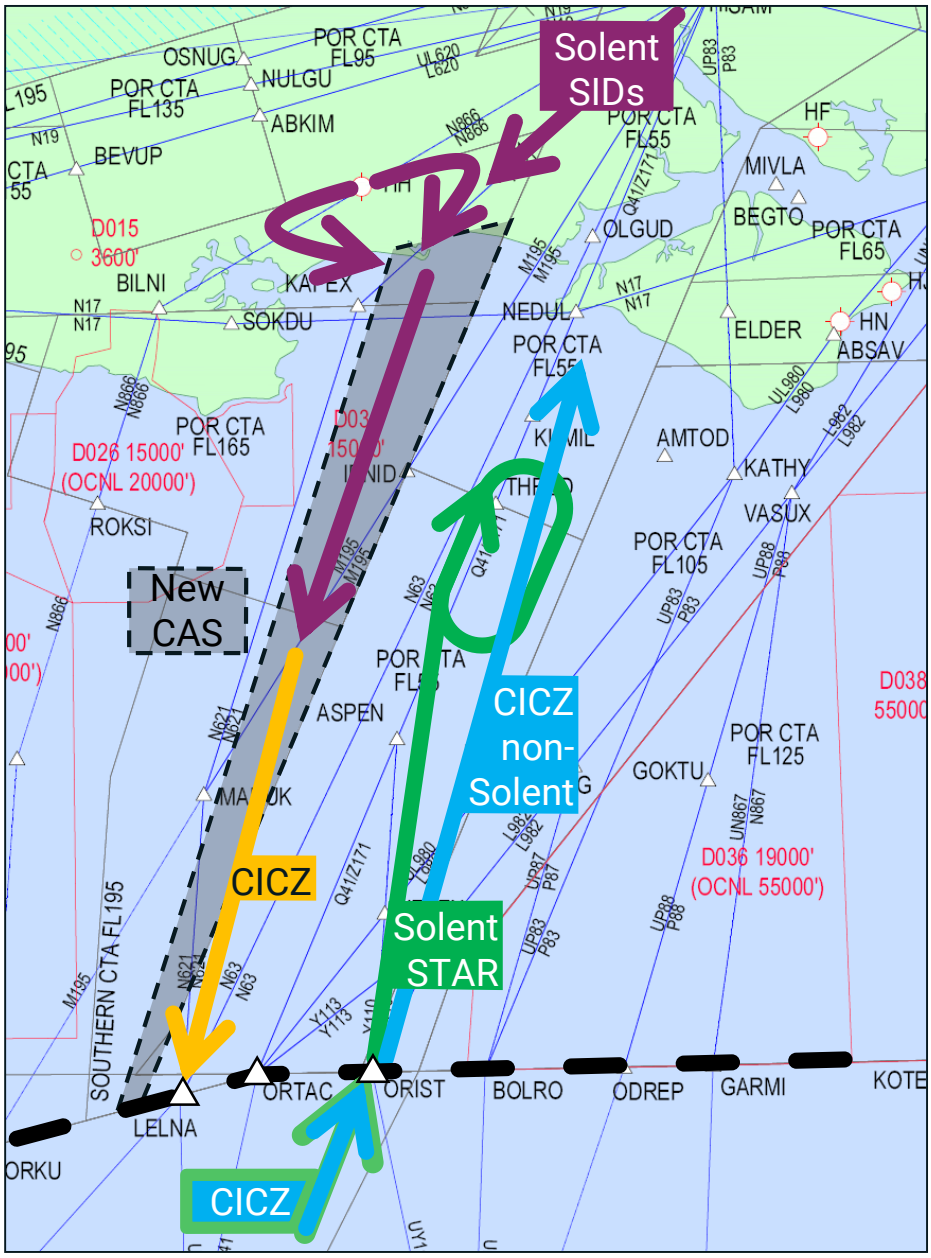

Figure 2 Option 1 Concept – Major restructure

5.1 This concept of full flow systemisation requires:

Introduction of SIDs (or revised departure procedures) from Solent airports
Widening of controlled airspace
New STAR for Solent airports

6. Option 2 Concept description – Minimal restructuring of LAC S21 airspace and flows

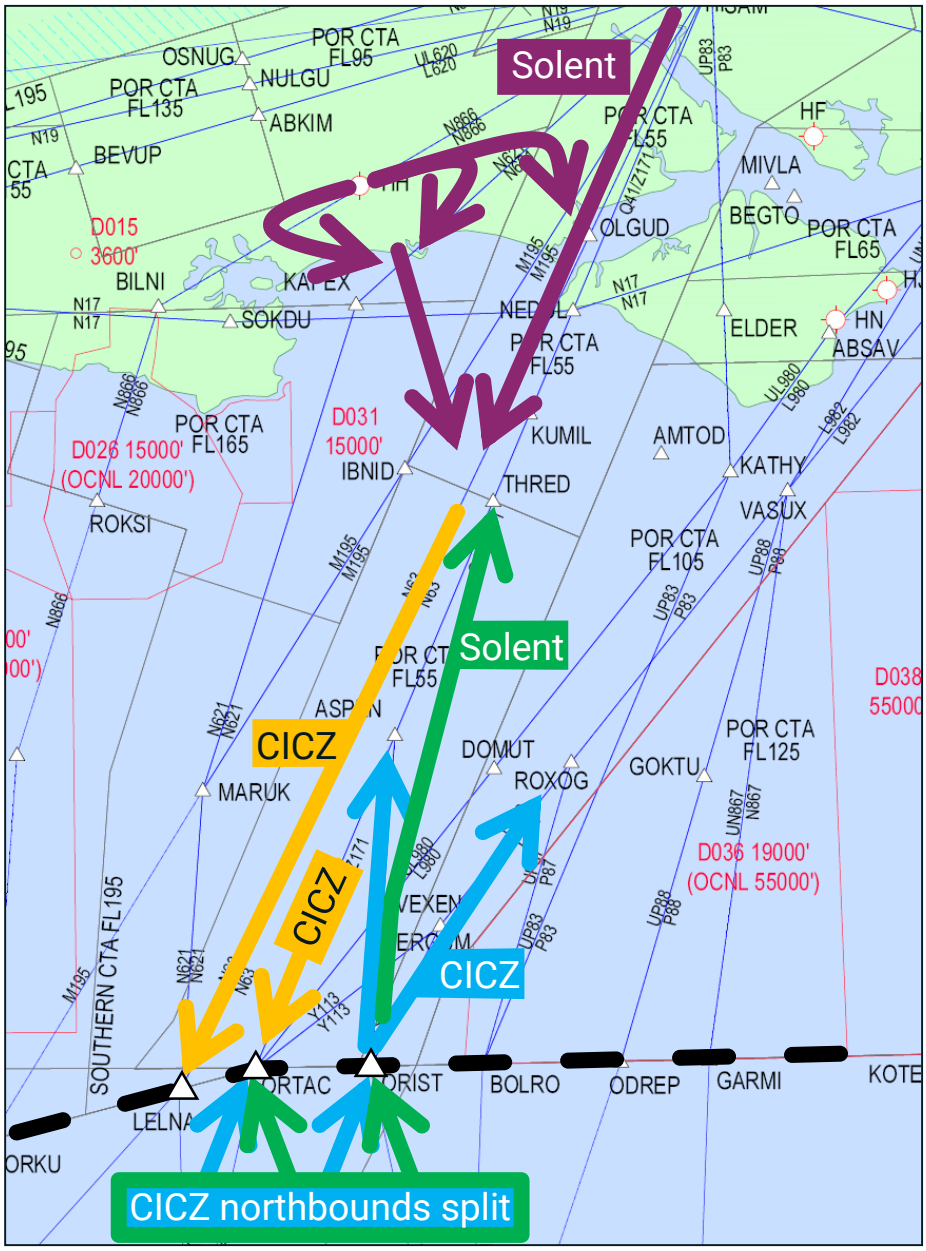

Figure 3 Option 2 Concept – Minimal restructure

6.1 This concept of partial flow systemisation generally uses existing waypoints and controlled airspace in a slightly different way from the baseline.

6.2 Traffic northbound from CICZ would be split into lower flows via ORTAC, higher via ORIST.
Traffic southbound into CICZ would also be split so that ORTAC has the lower traffic, LELNA the higher.
The split between 'lower' and 'higher', in this context, is still to be determined.

6.3 This has similarities to today's flows but more formally aligns UK route structure with PoJ/DSNA routes.

7. Further development

7.1 Subsequent to the assessment meeting, there was some discussion within NATS and also between NATS and SARG regarding potential changes to the most commonly used track taken by the flightpaths of a proportion of aircraft between 5-7,000ft, where they cross the south coast, under some circumstances.

7.2 NATS is confident that, as originally presented in Option 2, the potential changes would occur in a region where flights are common at that altitude within a wide southbound swathe.

7.3 However, NATS also understands the CAP1616 definition of Level 1 changes vs. Level 2 changes.

7.4 Even though it is very unlikely there would be a noticeable impact due to the originally-planned concept, NATS undertakes to further develop the Option 2 concept, if required, in order to ensure it would not result in changes to tracks over land below 7,000ft.

7.5 In this way, the benefits and issues associated with the two option concepts can also be separated into Level 1 and Level 2 types of change, assisting the options analysis process.

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