Swanwick Airspace Improvement Programme

Airspace Development 4 (Dutch Interface Routes)

SAIP AD4
Documentation:
Stage 4 Update and Submit

Step 4B Airspace Change Proposal

Executive Summary

Swanwick Airspace Improvement Programme
Airspace Development 4 (Dutch Interface Routes)

NATS' Swanwick Airspace Improvement Programme (SAIP) is proposing a number of modular airspace changes within the London Flight Information Region (FIR), managed by NATS Swanwick. It aims to modernise each region via airspace deployments (AD) in different regions of the FIR.

This module, SAIP AD4, concerns the development and systemisation of westbound air traffic service (ATS) routes in the Clacton Sector where there is significant demand forecast for the future. This region is a volume of airspace over the sea between the Dutch and UK coasts, within which the air traffic service are delegated to NATS from LVNL (Amsterdam region air navigation service provider) and MUAC (Maastricht Upper Airspace Control Centre).

This proposal seeks to alter the westbound traffic flows from Maastricht Delta Sector (MUAC) which currently funnel via a single coordination waypoint (COP), GORLO, to three route flows via a different arrangement of COPs. The proposed westbound routes will be designated as 'RNAV1 routes', which have a higher navigation specification allowing parallel routes to be safely placed closer together, providing a more systemised route structure aimed at reduced complexity and workload in this region of airspace. An enhanced cross border transfer of westbound traffic will reduce complexity and workload for NATS, LVNL and MUAC.

This proposed change has been designed in support of, and to complement, the simultaneous free route airspace implementation by Maastricht MUAC (FRA-M) further east.

We forecast that changing the westbound flows would cause some overall flightplan routes to be longer, increasing fuel consumption for some flights. We believe this is an acceptable cost for the reduction in complexity and longer-term benefit in capacity the proposal would enable. In order to reduce that fuel consumption, this proposal also seeks to alter some eastbound flows from the UK towards the Netherlands, so that the return flight would get a benefit to offset the westbound disbenefit.

To facilitate this change, NATS developed design principles, evaluated some design concepts, analysed the leading concept, created a strategy to identify, engage and target specific stakeholders, launched & completed a focussed consultation, and analysed & categorised the responses submitted by fourteen stakeholders.

Three response elements were identified with the potential to impact the proposed design. Of those three, two were progressed into the final design (one specific improvement to westbound flows, one general improvement to eastbound flows) and one was rejected because it would cause changes to low-level air traffic patterns.

The proposed changes are all above 7,000ft and mostly over the sea. Priority has not been given to local environmental impacts such as noise, visual intrusion, tranquillity or local air quality.

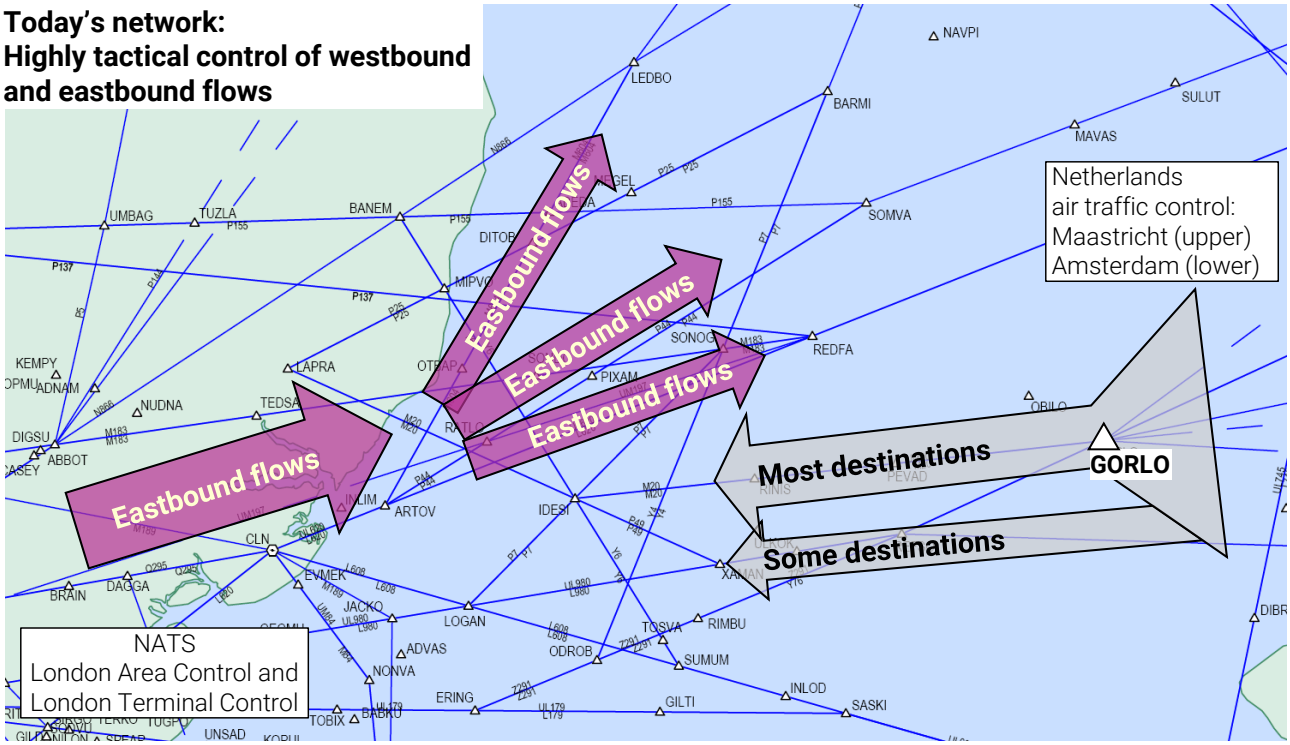
This is a Level 2A airspace change proposal (ACP) under the airspace change process known as CAP1616 (link).

For full details of the progress of this airspace change proposal, please see the CAA's website at this link or search online for "caa saip ad4 airspace change".

The ACP was submitted to CAA on Friday 15th June 2018.

If the proposal is approved by the CAA, implementation is planned for Thursday 6th December 2018.

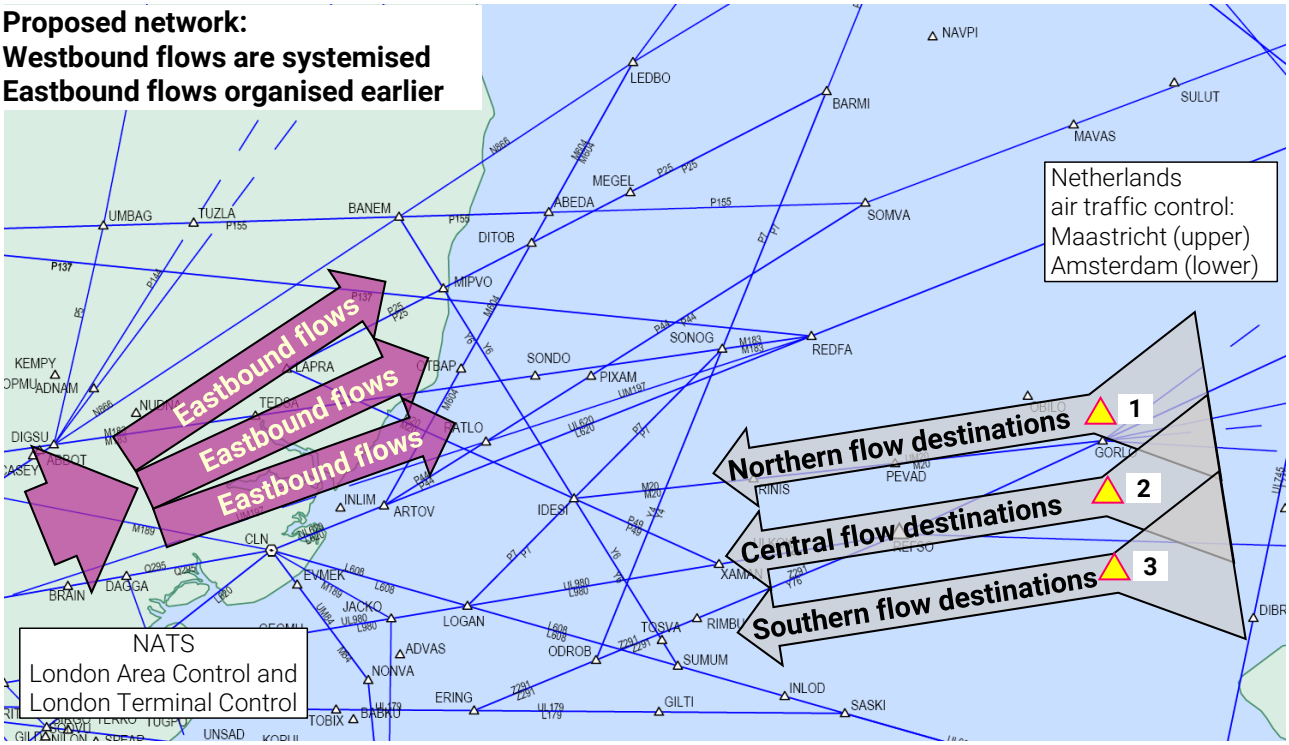
Today's network:
Highly tactical control of westbound and eastbound flows



Today's flow schematic (above)

Proposed flow schematic (below)

Proposed network:
Westbound flows are systemised
Eastbound flows organised earlier



These flow schematics are simplifications for illustrative purposes.

For more technical details please see the full ACP.

Summary of benefits and impacts

Category	Impact
Safety/Complexity	Increased predictability of traffic flows from and to the Netherlands, reduction in complexity of ATC task due to systemisation
Capacity/Delay	Clacton West Monitoring Value (MV, a measure of capacity) planned to increase c.7% (indicative figure, post-deployment by the unit if considered appropriate). Estimated total UK delay reduction per flight: Up to 1.7s (2019) Up to 2.4s (2029)
Fuel Efficiency/CO_2	Predicted net fuel burn decrease 4,084T in 2019 (12,897T CO_2) and, in 2029, 4,769T fuel burn decrease (15,165T CO_2).
Noise – Leq/SEL	Not a priority – all changes 7,000ft or above
Tranquillity, visual intrusion (AONBs & National Parks)	Not a priority – all changes 7,000ft or above
Local Air Quality	Not a priority – all changes 7,000ft or above
Other Airspace Users	Minimal impact, no changes to volume or classification of CAS.

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