

Future Airspace Strategy

Overview

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UK FAS Background

Growth in UK aviation dependent on **modernisation of the Airspace System** to tackle inefficiency and generate benefits for passengers, industry and environment.

TODAY'S AIRSPACE IS OUTDATED – *developed 40+ years ago*

- Frequent Route Interactions and Tactical Intervention
- Traffic Bunching, Queues and Delays
- Poor resilience at key nodes (Heathrow)
- Expensive Air Traffic Control



FAS DELIVERS ON CORE SESAR CONCEPTS

- Re-design the route structure to systemised PBN standards
- Improve the use of data and tools to sequence traffic and manage queues
- Integrate Airports into the Air Traffic Management System (A-CDM).

Airspace Designed For A Different Era

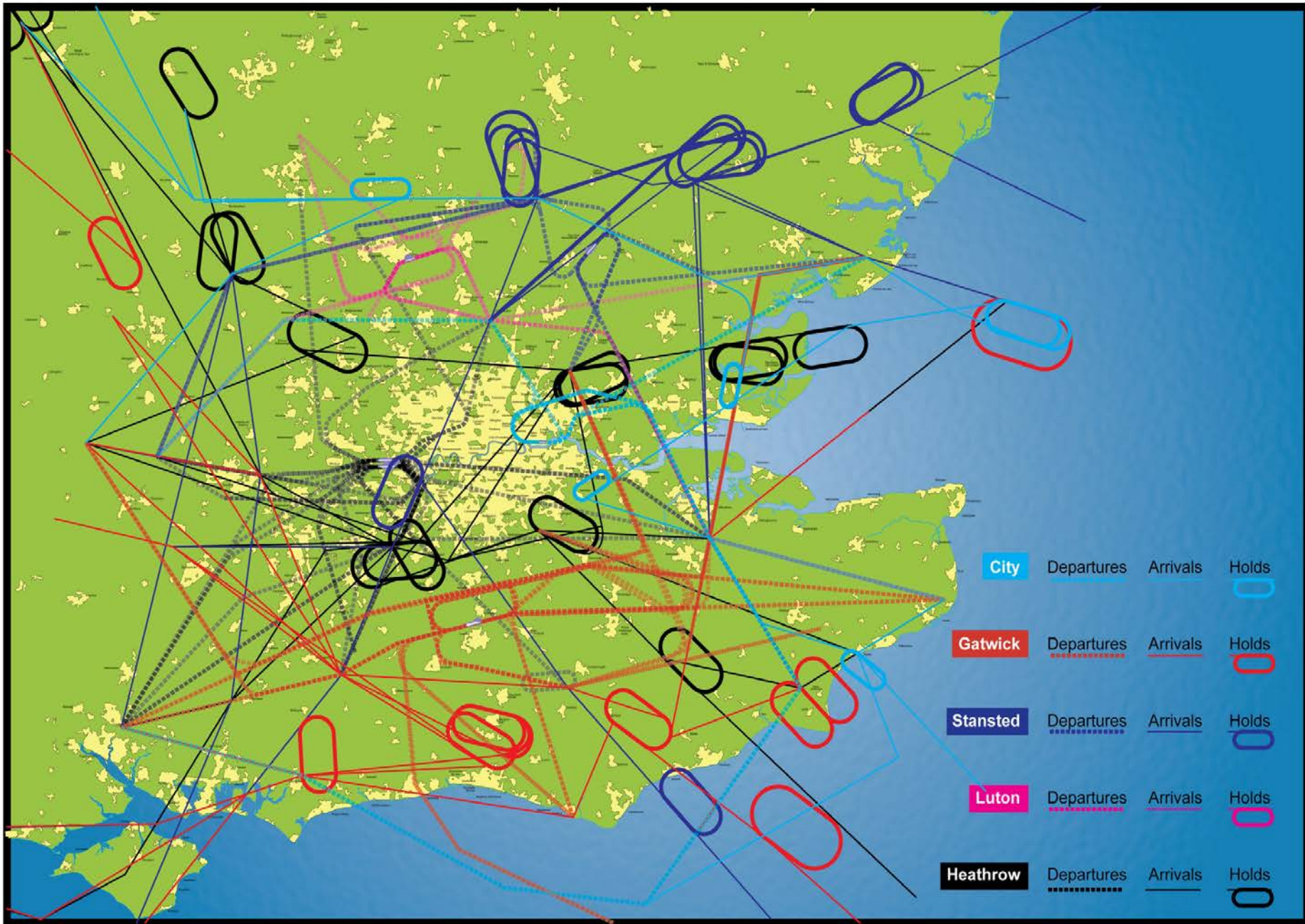
- Yesterday

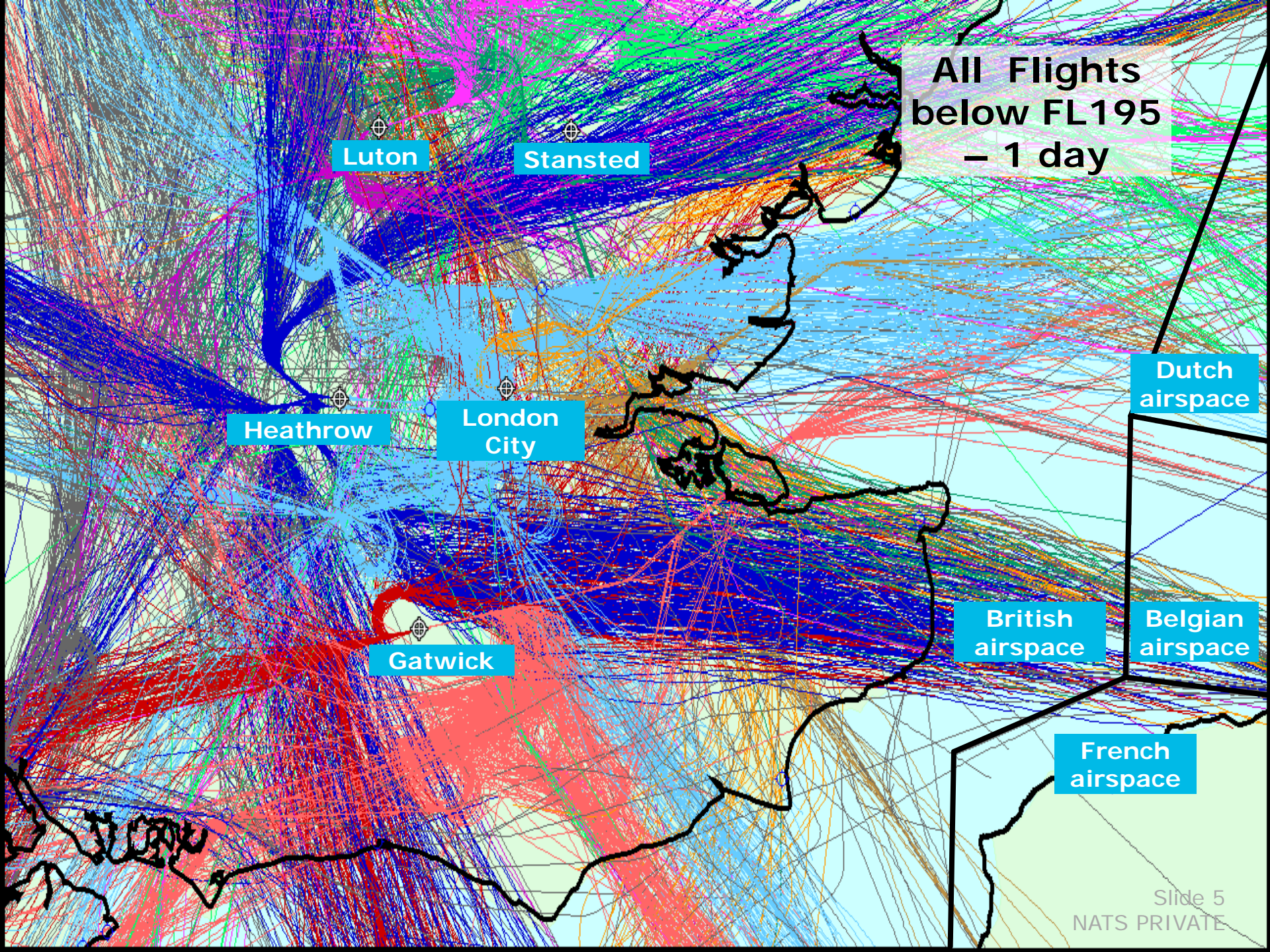


- Today



London Airports Arrivals & Departures Aug 2014





All Flights
below FL195
– 1 day

Luton

Stansted

Heathrow

London
City

Gatwick

Dutch
airspace

British
airspace

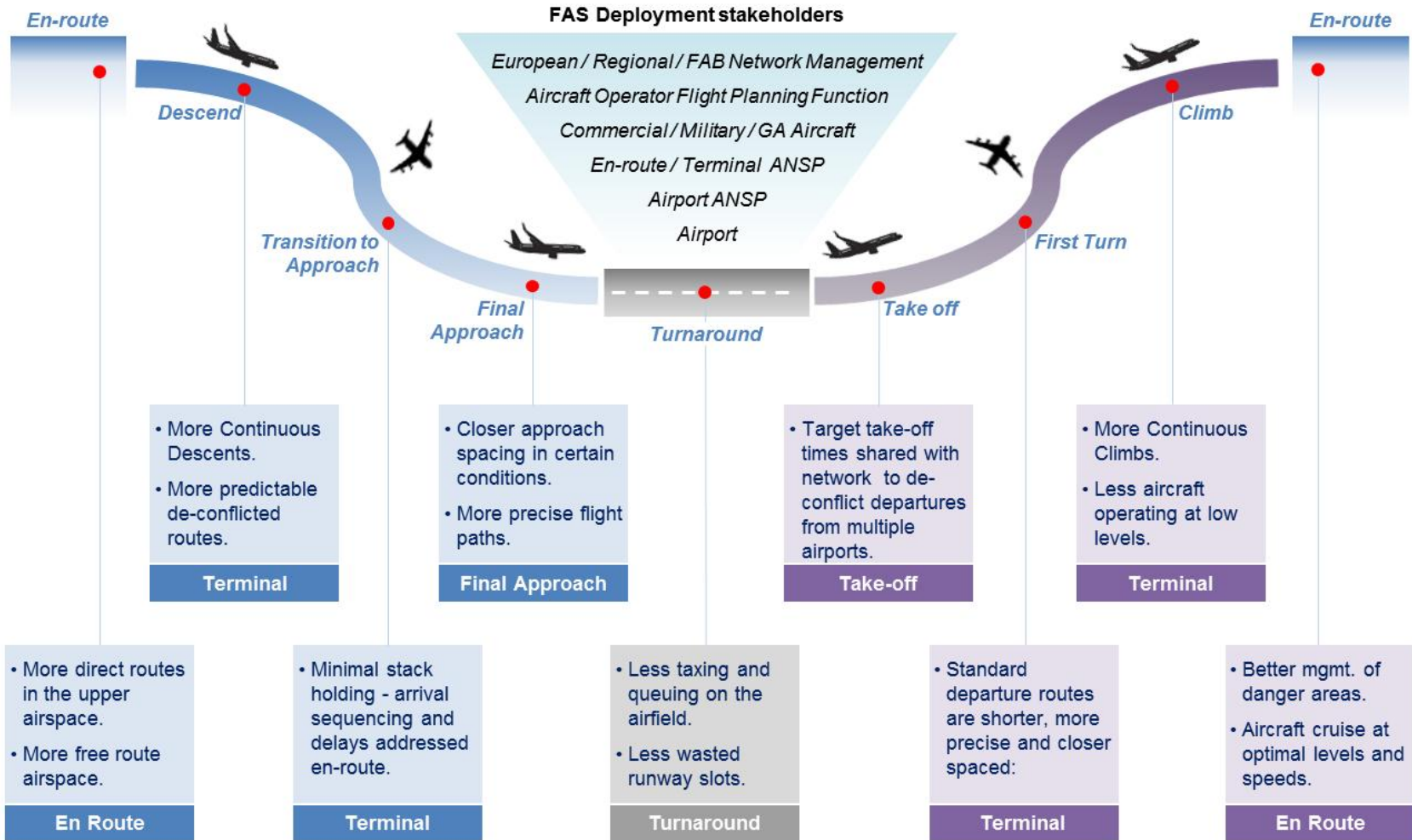
Belgian
airspace

French
airspace

Modernising UK's Airspace – The Need for Change

- Airspace arrangements 40 years old – tweaked over the years
- Global navigation performance standard is Performance Based Navigation – what the International Civil Aviation Organisation (ICAO) and European Aviation Safety Agency (EASA) expects.
- Aircraft come equipped to this standard off the production line.
- Old ground based infrastructure no longer being replaced 'as is'.
- Provides opportunities for doing things differently
- CAA's **Future Airspace Strategy** –safety, capacity, environment and efficiency at its heart.
 - It is not a blueprint of an airspace design; more a shopping list of technologies and methods to be deployed.
 - For 'Industry' to design and implement.

Performance improvements expected across every phase of flight



FAS Facilitation Fund Project Investments

Project	Sponsor	Stage
Advanced-FUA CONOPS	NERL	Project started
PBN Research Project (DEP2)	NERL	Project Started
Fund Admin	NERL	Project Started
AFUA - LARA FOST Trial	MoD	Project Started
FASVIG Programme	VFR Community	Project Started
PBNRP Enhanced Route Spacing	CAA	Project Started
APV deployments (50% co-funding)	DSG / AOA	Project Started
DPI Roll-Out	Transport Systems Catapult	Project Started
A-CDM CONOPS	Transport Systems Catapult	Project started
PBNRP-Test database	EZY on behalf of the Lead Carrier group	Project Started
Comms – Strategic case for FAS ; video	BATA	Project Started
FASIIG Comms Role	FASIIG Co-Chairs	Project Started
PBNRP-Third Party Simulator Costs	Airlines/NERL	Project Started
LDLCA Electronic Surveillance Trial	HAL	Project Proposal
AFUA State Project		Proposal Development
Low Power ADS Transponder Device trial	NERL	Proposal Development
D-ATIS	FASIIG	Proposal Development
Departures and Arrival Transitions	AoA	Proposal Development