Cardiff Airport Airspace Change Proposal (ACP)

Stage 2 Develop and Assess Step 2A Options Development



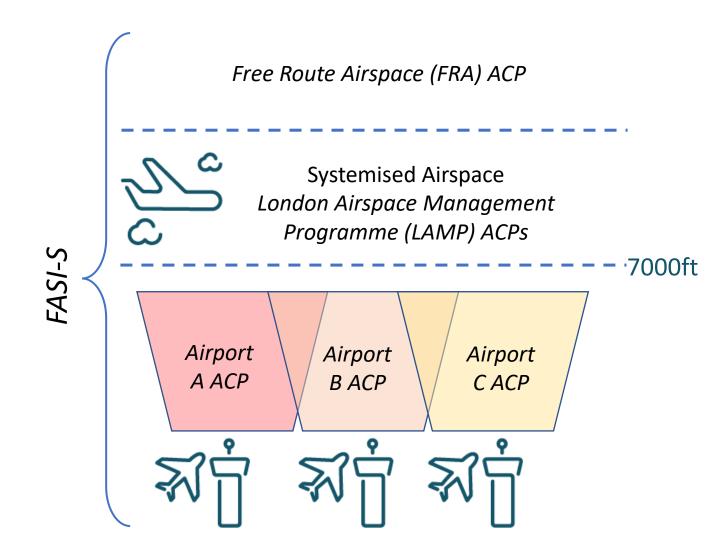
Agenda

- Introductions
- UK Airspace Modernisation
- ACP requirements
- ACP progress
- Options Development Work



UK Airspace Modernisation

- Cardiff Airport's ACP is part of the Future Airspace
 Strategy Implementation South (FASI-S) alongside:
 - 14 other airport ACPs;
 - High-level systemisation and free route ACPs (NERL)
- These linked ACPs can achieve collective benefits such as:
 - Enhance operational resilience of the ATC network;
 - Reduce the environmental impact of flights;
 - Improve efficiency from more precise and direct flights;
 - Facilitate airspace access for all users;
 - Reduce the impact of aviation noise.





Cardiff Airport ACP Requirements

- As covered in our Statement of Need, Cardiff Airport seeks to achieve the following benefits from its airspace change:
 - Remove reliance on ground-based navigation aids
 - Introduce more efficient, precise and environmentally friendly routes
 - Support future traffic growth of Cardiff Airport and surrounding airspace
 - Limit environmental and noise impacts of flights in/out of Cardiff Airport



ACP Progress To Date

Nov 19 – Mar 20 ACP paused (covid)

Jun 21 – Feb 22

Mar 22 – Autumn 22

Mar 25

Stage 1 Define

Step 1A: Assessment Requirement

Step 1B: Design Principles

Stage 2 Develop and Assess

Step 2A: Options Development

Step 2B: Options Appraisal

Stage 3 Consult

Step 3A: Consultation Preparation

Step 3B: Consultation Validation

Step 3C: Commence Consultation

Step 3D: Collate and Review Responses

Stage 4 Update and Submit

Step 4A: Update Design

Step 4B: Submit Proposal to CAA

Stage 5 Decide

Stage 6 Implement

Stage 7 PIR

1A: Statement of Need

1A: Assessment Meeting between Cardiff / Civil

Aviation Authority (CAA)

1A: CAA determines whether ACP is appropriate

1B: Engagement between Cardiff/ stakeholders

1B: Design Principles

1B: Document summarising how the Design Principles

were developed and influenced

2A: Airspace Change Design Options

2A: Further engagement with stakeholders on options

2A: Design Principle evaluation

2B: Initial Options Appraisal



Next Steps

- Stage 2 design workshops
- Collation of material
- Design updates
- Re-engagement planned (virtual presentation)
- Design Principle Evaluation and Initial Options Appraisal
- Final documentation and submission to CAA (Jan 2022)



Options Development

The designs will work towards achieving the following final published procedures:

- Replication of 5 existing SID routes using RNAV-1
- Design of up to 4 new SID routes using RNAV-1 (1 westerly and 1 south easterly per runway)
- Assessment of the suitability of a hold being shared with neighbouring Bristol Airport or dedicated hold(s) or point merge techniques for Cardiff Airport
- Develop an RNAV-1 Hold and up to 6 Transitions to connect to the existing "T" Bar approaches.



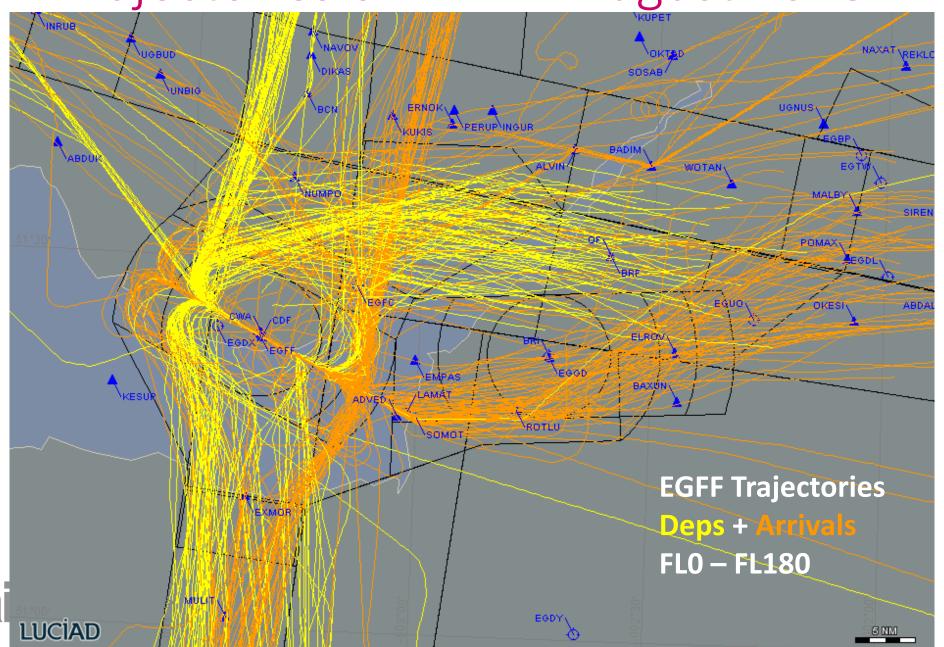
Options Development

Alternative design options:

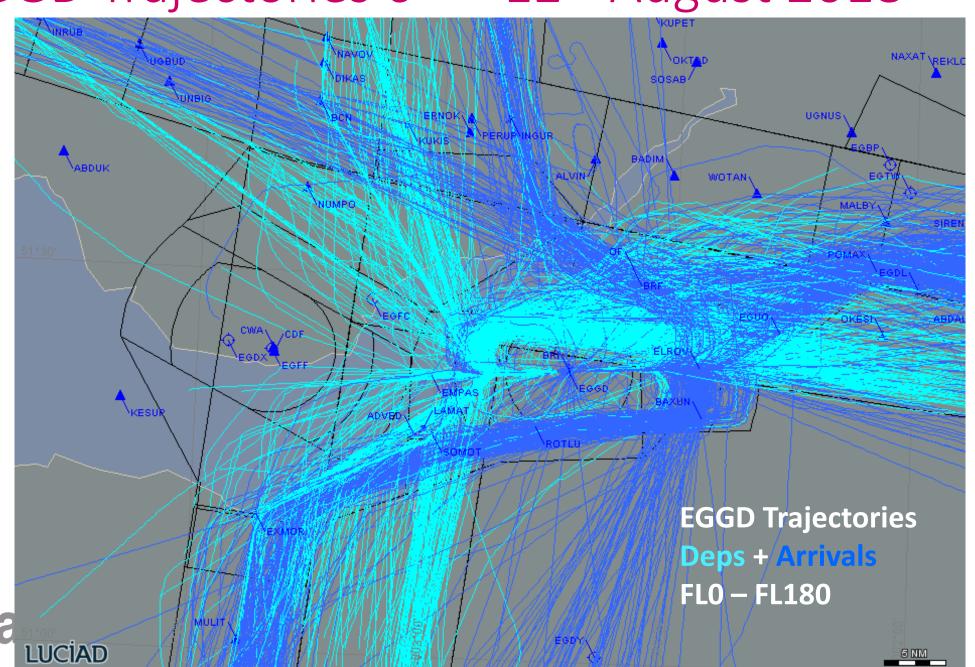
- Trombone procedures
- Point Merge



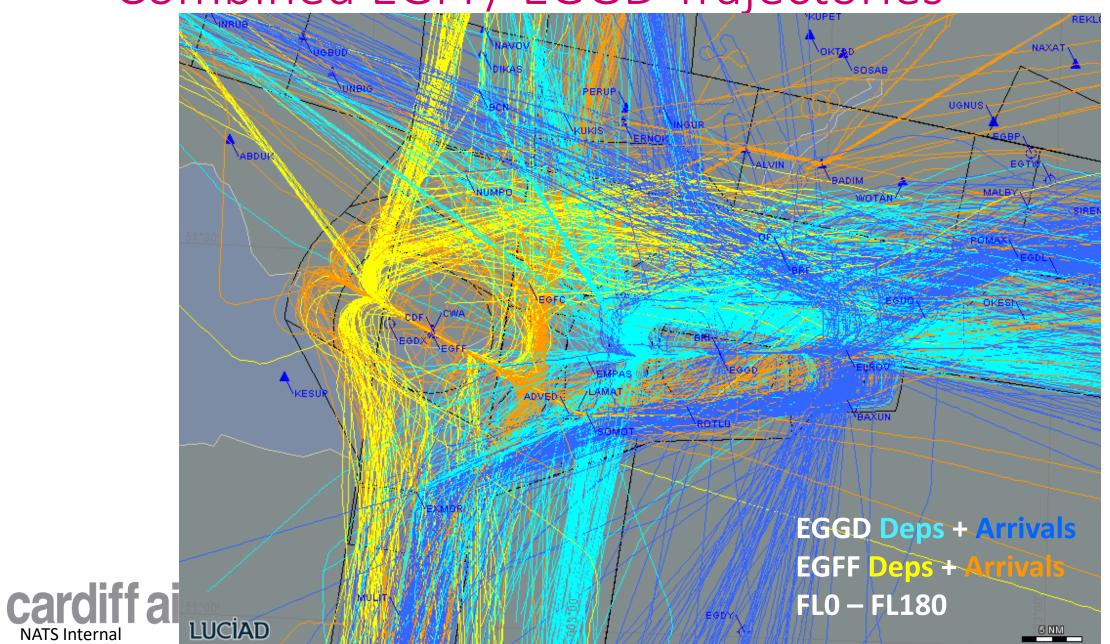
EGFF Trajectories 6th – 12th August 2018

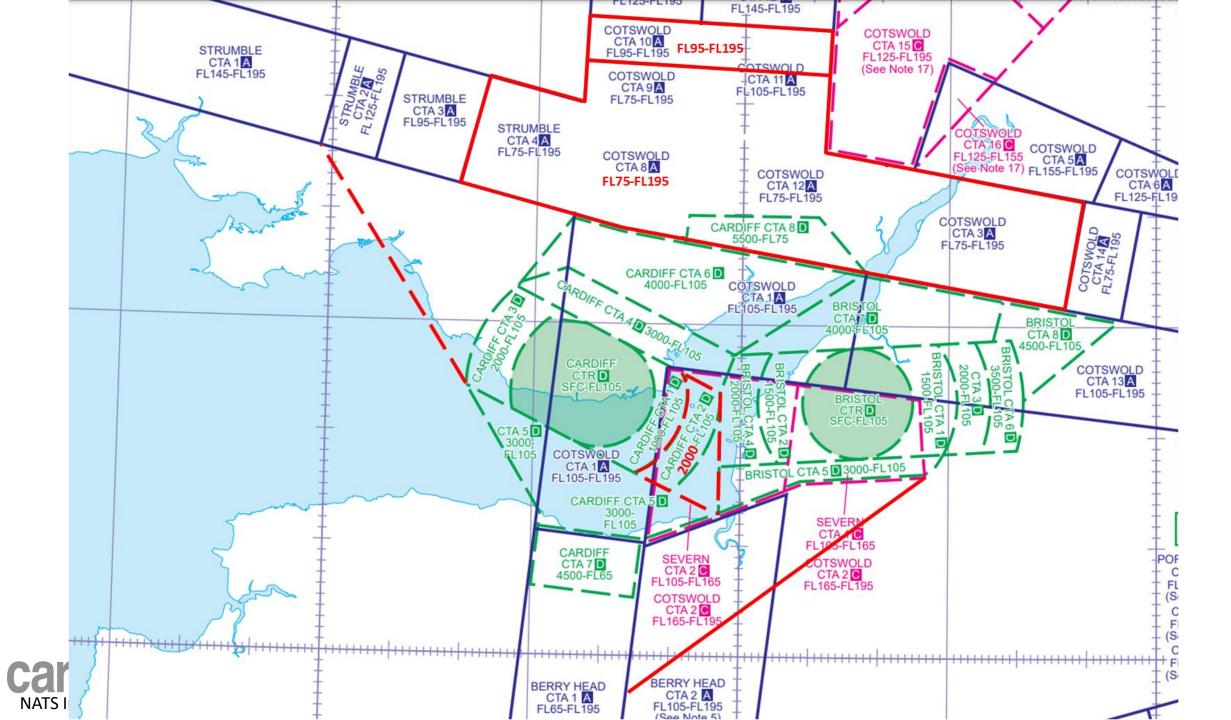


EGGD Trajectories 6th – 12th August 2018

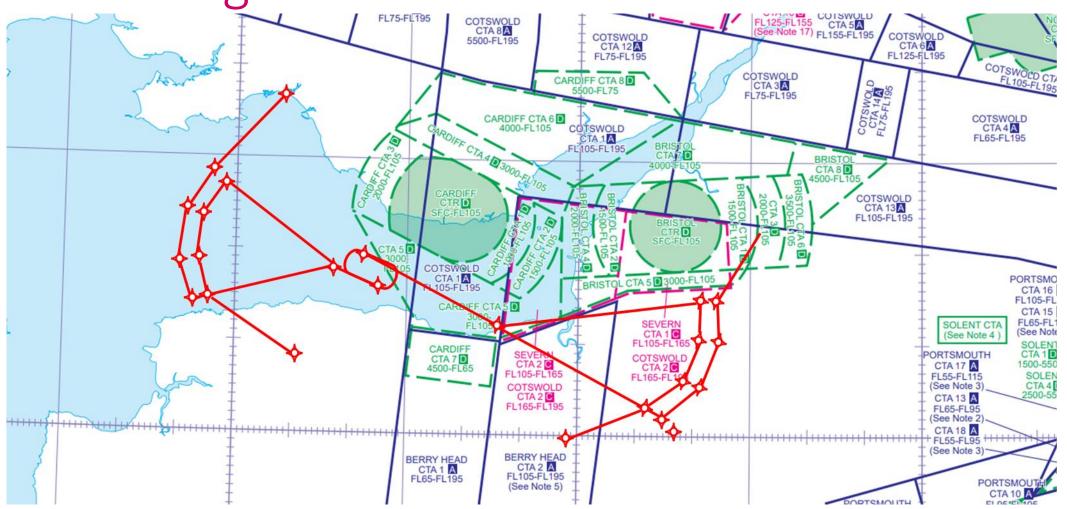


Combined EGFF/ EGGD Trajectories





Point Merge

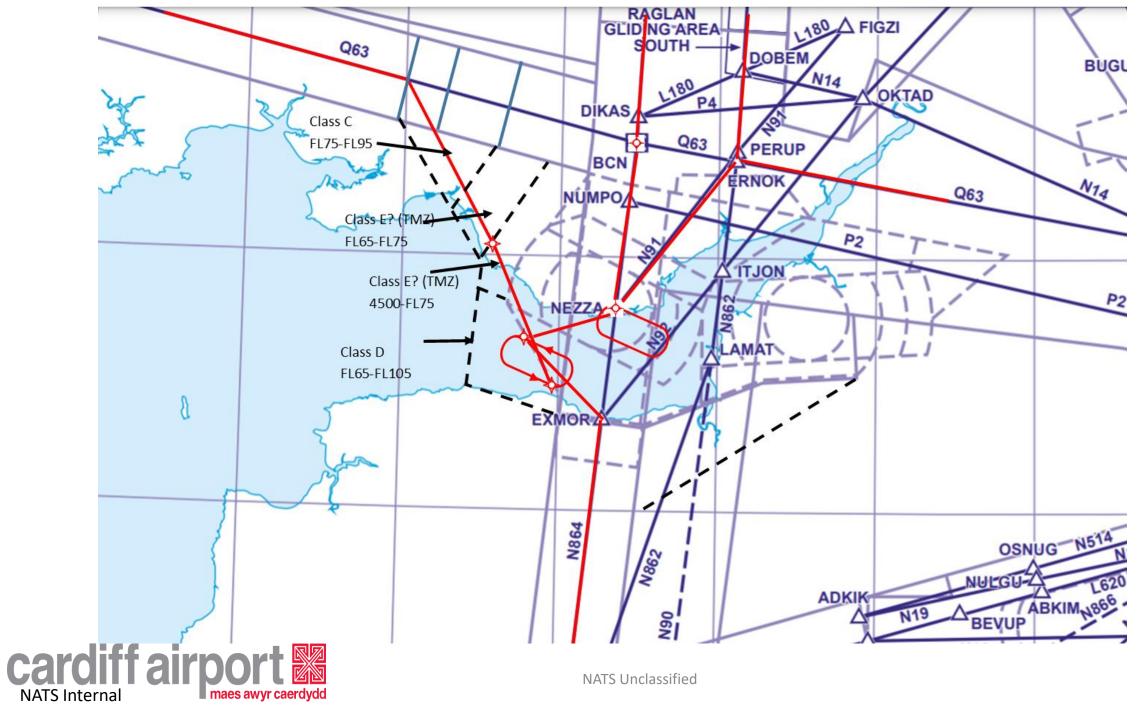




Point Merge - Considerations

- Procedure based to the south East:
 - Suits most arrivals which are from the South and East, however impractical due to the interaction with Bristol traffic
 - Big impact on military and GA/BGA
- Procedure based out to the West:
 - Requires a huge chunk of Class G airspace
 - Away from the main arrival streams of traffic
 - Will entail increase in fuel planning requirements
 - Most (probably all) traffic would be vectored away from the procedure





RNAV Transitions



SIDS (North, West, East)



