EIS – Aviation Solutions and Insights

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envirosuite

FORUM23

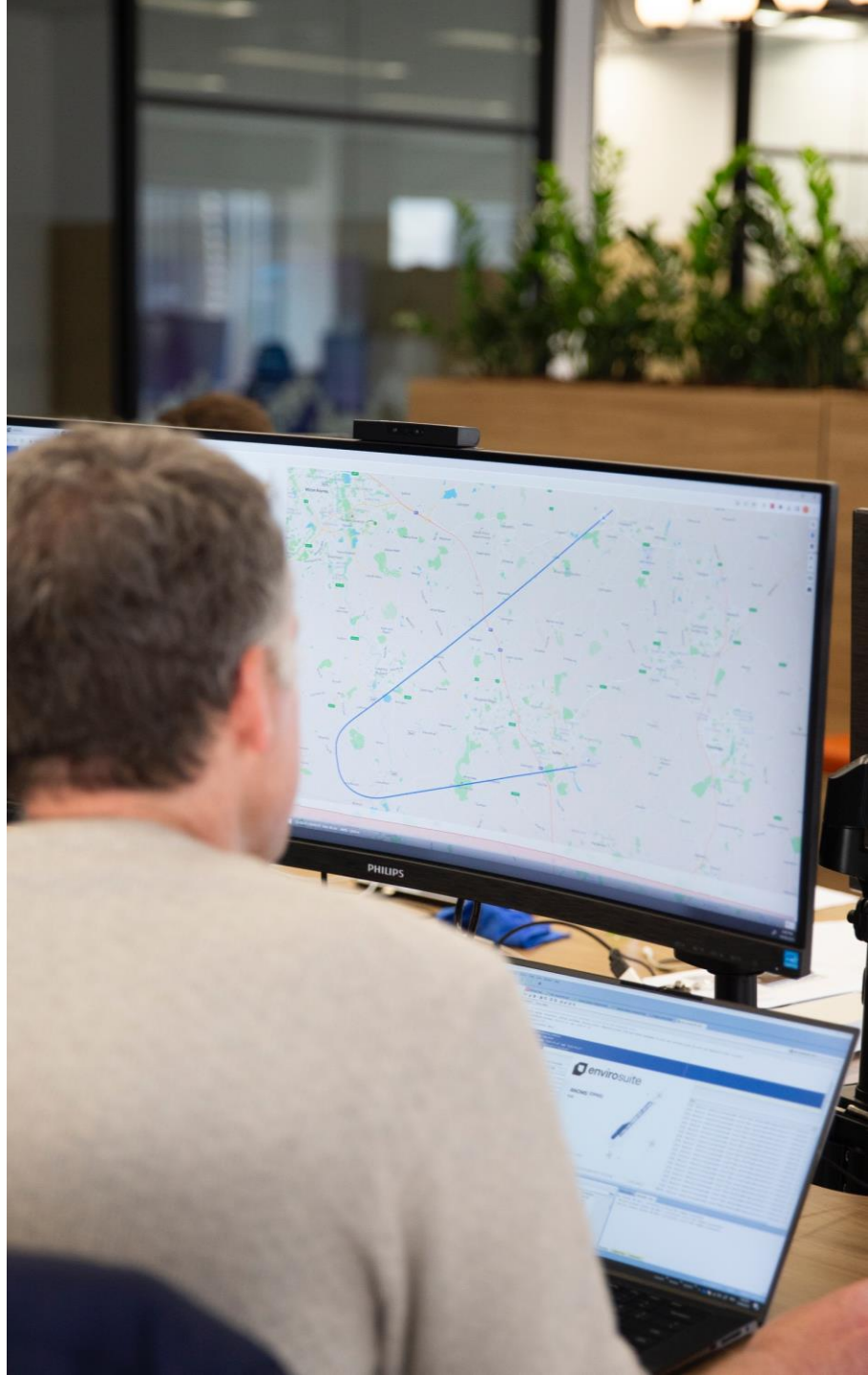
Flightpath to the Future: Reconnect & Collaborate

What is **EIS?**

Environmental Intelligence Services, EIS, are a unique team of environmental subject matter experts within Envirosuite.

We combine our expertise of aviation, airport operations, our products and technology to help our customers achieve their strategic goals through the application of environmental intelligence.

This can range from operating our products on behalf of customers, supplementing product capability to meet tailored needs, through to solutioning new ideas and testing concepts.



How do we work with you?

COLLABORATIVLY

You understand your challenges, your aspirations and what can and cannot be done

We have a deep understanding of our products and our technology

We are working with some of your peer airports globally, and we bring all that together

We bring all this together to help you move noise management programs forwards

All with the aim to provide you with the insights you need to allow you to satisfy your stakeholders requirements

CASE STUDY

San Francisco International Airport

SFO has a mature fly Quiet program, but it has been static for several years

The airport brought in EIS to understand what other initiatives were being used in noise programs globally that could work at SFO

We've **collaboratively** explored multiple options and are progressing these with a view to including them in a revised program

Some of these metrics involve using ANOMS functionality that is new to SFO and we're providing the methodology for reporting on these new procedures

CASE STUDY

Port Authority of New York & New Jersey

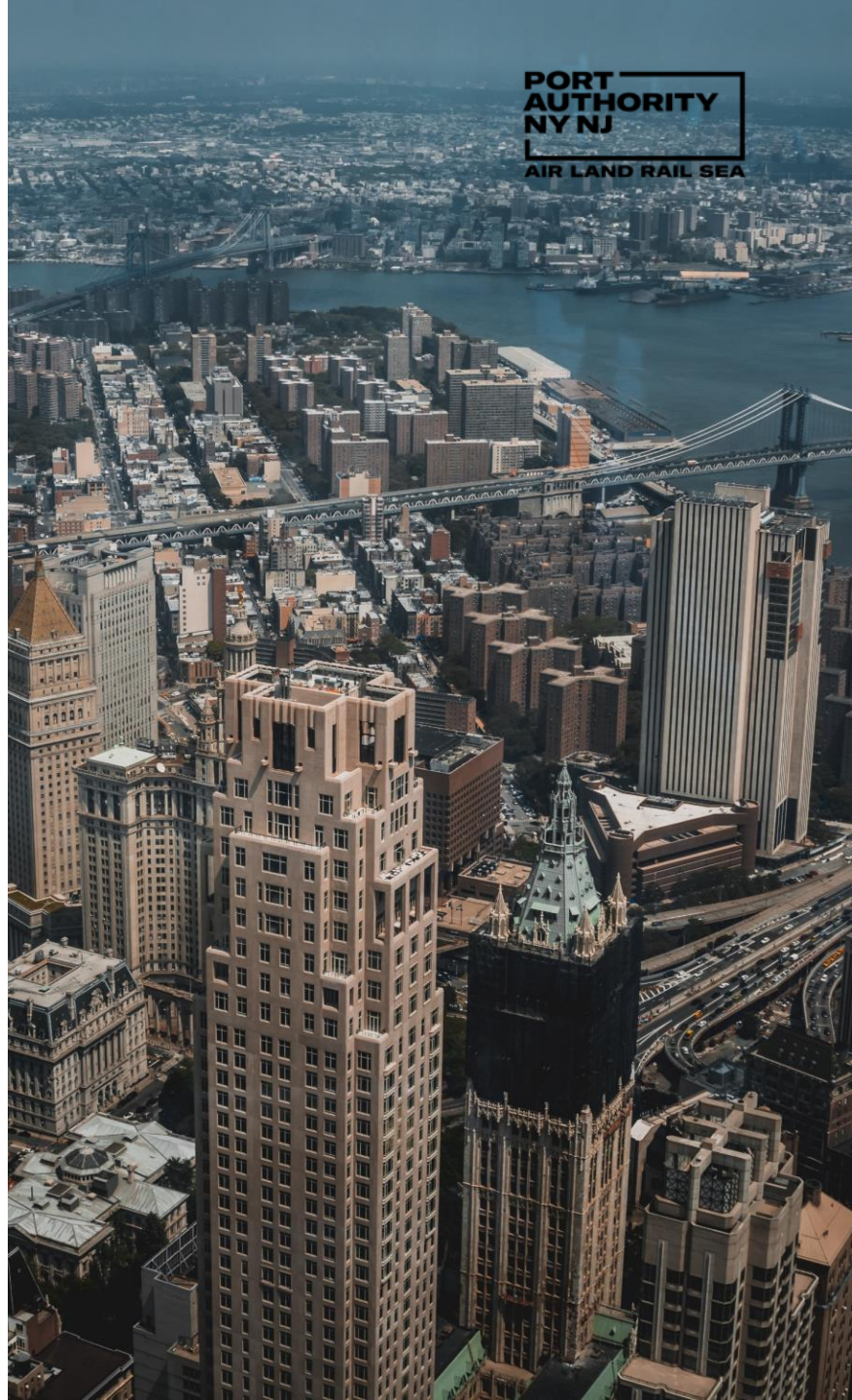
Public commitment to launch a Fly Quiet scheme

Four airports involved – KJFK, KLGA, KEWR, KTEB

Multiple procedures across the airports

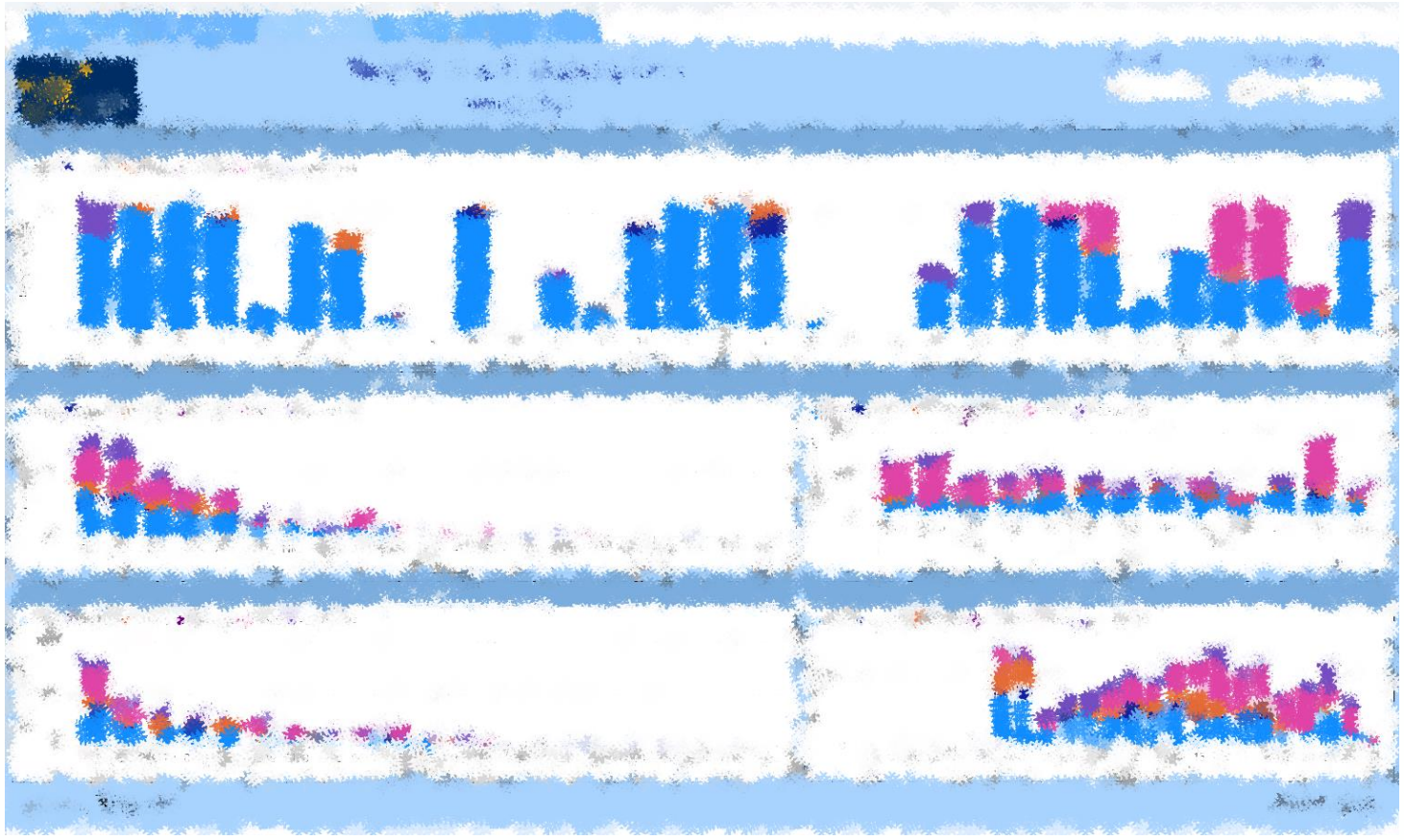
Data to be kept internal initially

The brief was to design a set of methodologies within ANOMS to capture flights operating on specific procedures, tag them and push them to a dashboard



Dashboard

- The result is eight unique procedures across four airports
- A mixture of arrival and departure procedures all aimed at improving the noise climate in the New York area
- **The underlying data is calculated automatically and pushed to the dashboard**
- **The data is available for analysis via set of custom-built Queries**



CASE STUDY

Dublin Airport

The Covid pandemic meant many staff at Dublin left, including experienced noise staff

A new runway opened in 2022

A new aviation regulator was appointed

The regulator commissioned an independent Noise Benchmarking report that put huge pressure on the airport to become best in class in noise management

Along with upgrades to their noise systems, Dublin have an allocation of EIS hours to help them with these challenges

CASE STUDY

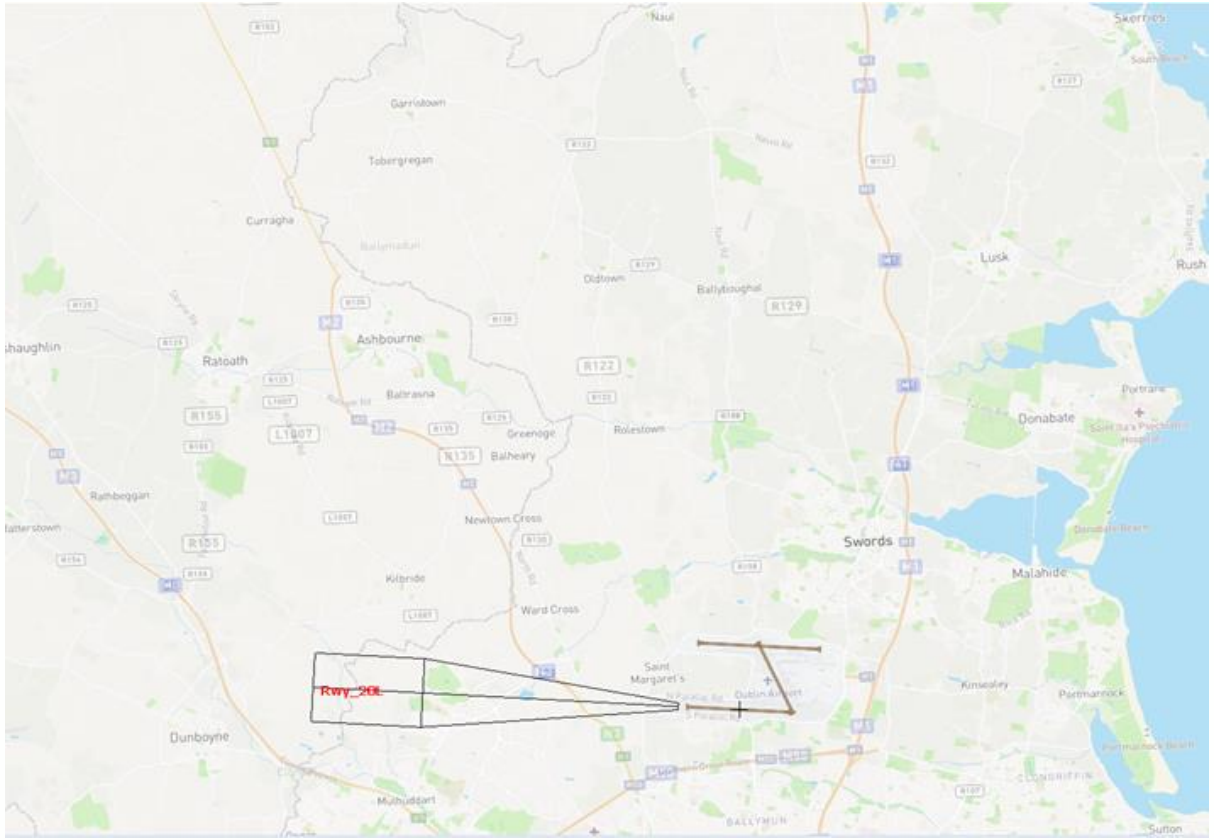
Dublin Airport - EIS

- Assistance in setting up ANOMS to satisfy the needs of the regulator
- Helping with the methodology for complaint reporting
- Technical expertise in the creation of
  - New SIDS and STARS
  - CDO and CCO
  - Design of the new Noise Corridors using best practice methodology
  - Compliance Monitoring

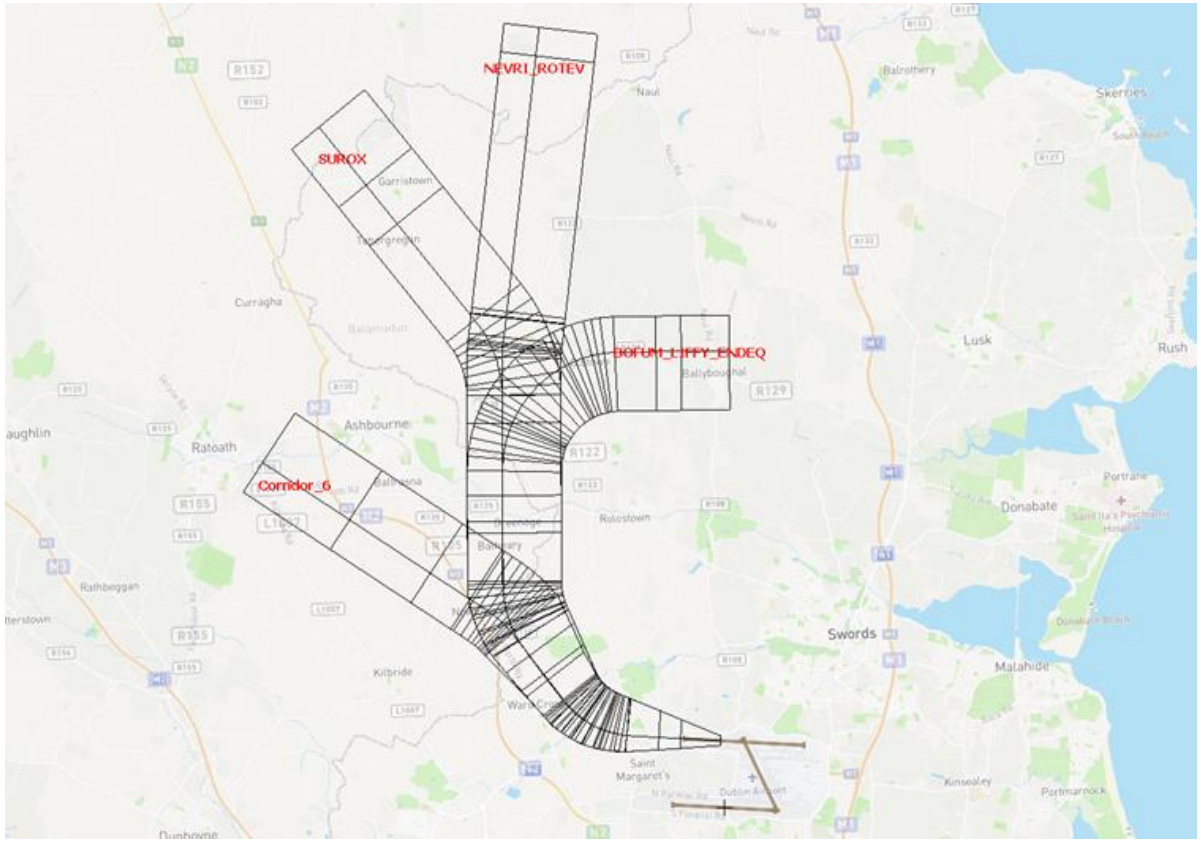
- New community impacts
  - New noise monitoring reports
  - Advice on the siting of an additional 17 noise monitoring terminals

Dublin Noise Corridor evolution

Noise corridors for the existing runway

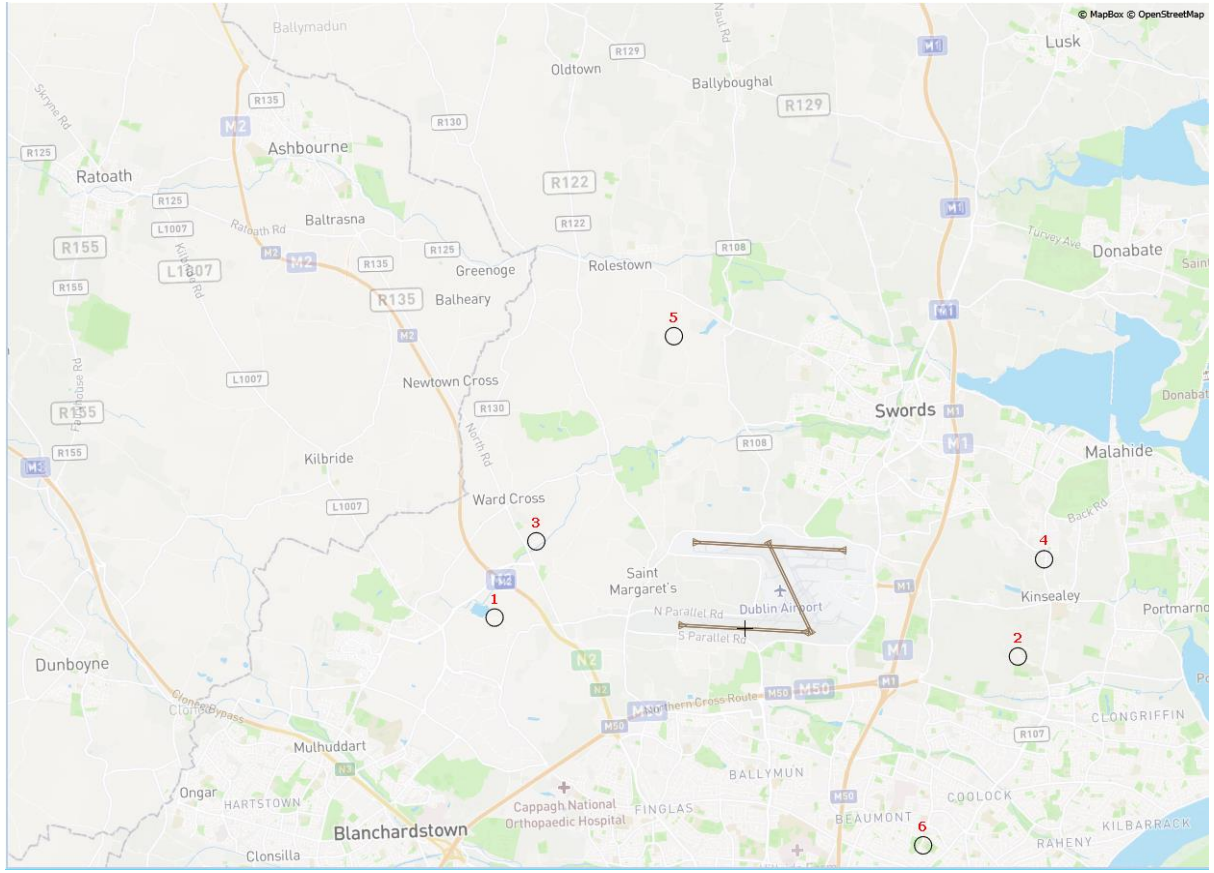


Noise corridors for the new runway

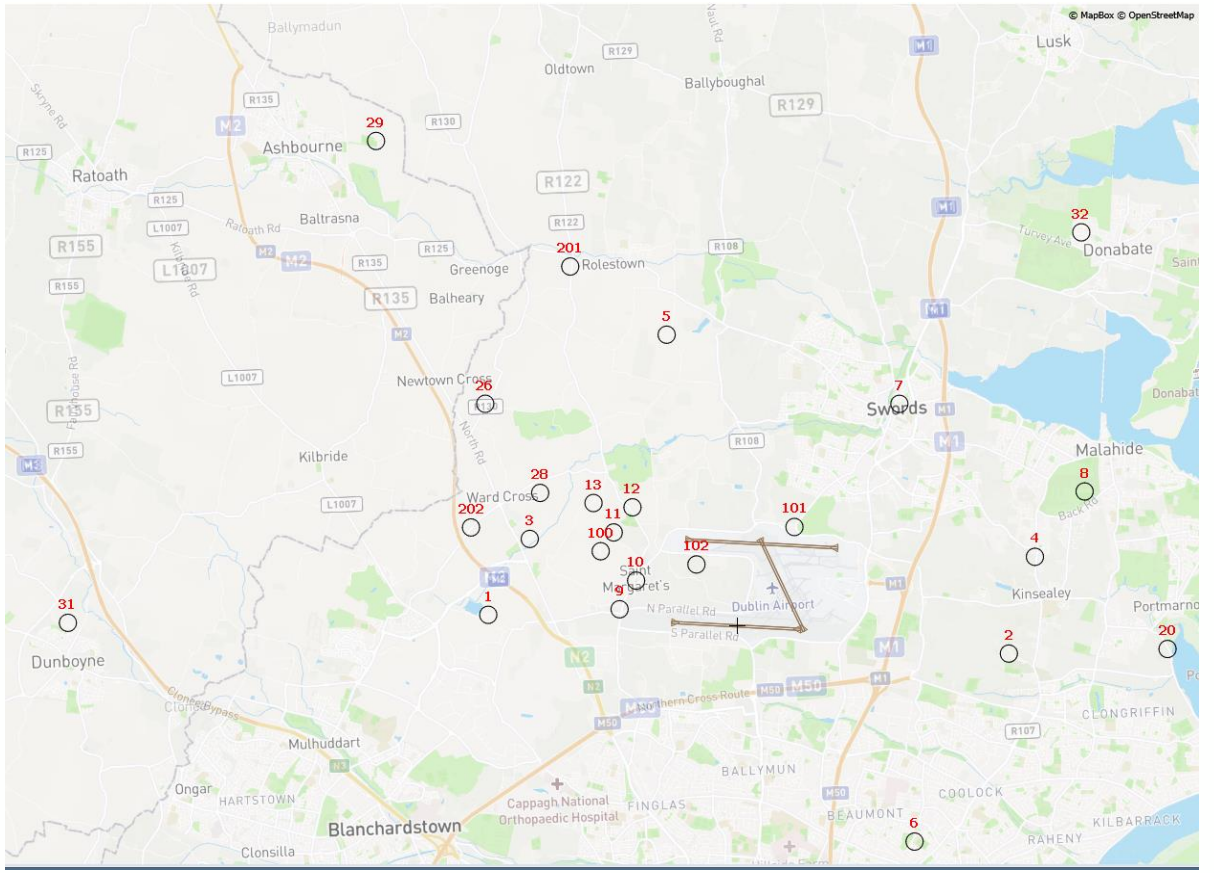


Dublin Deployed NMT Evolution

Noise monitors for the old operation



Noise monitors for the new operation



CASE STUDY

London Heathrow Airport

Heathrow has been running a Fly Quiet and Green League table since 2012

The program has undergone two reviews resulting in two iterations and was paused during Covid

However, running the program takes a lot of manpower

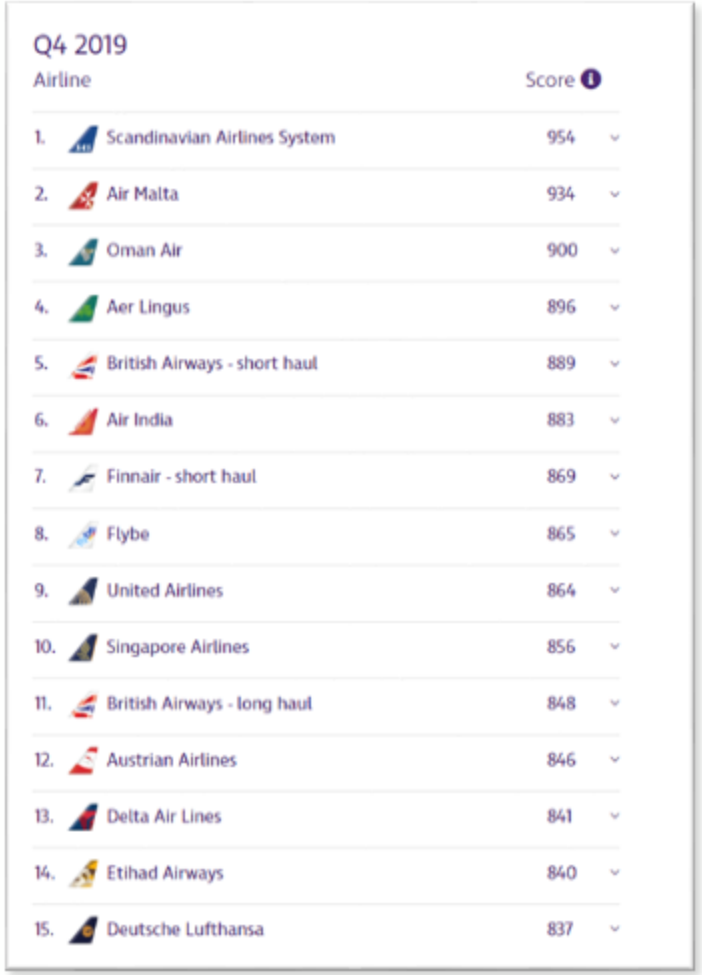
Heathrow has asked EVS to assist with the design of a new Fly Quiet League table

And to look at ways to automate the production and publication of the new program

Heathrow Fly Quiet and Green

Work with Heathrow to understand their goals and aspirations

- The new program must not increase the workload of the Heathrow team
- All metrics must be applicable to all aircraft types operating at Heathrow
- Metrics should be a mix of operational and certification KPI's
- Airlines should have easy access to the data to enable decisions to be taken to improve ranking e.g., Airline Compliance Module
- Scoring calculation must be easy to understand and mathematically robust
- Maximum of 6 – 8 metrics
- Ideally a balance of arrivals and departures
- A time-based metric(s) to help drive performance in the Night/NNQ periods



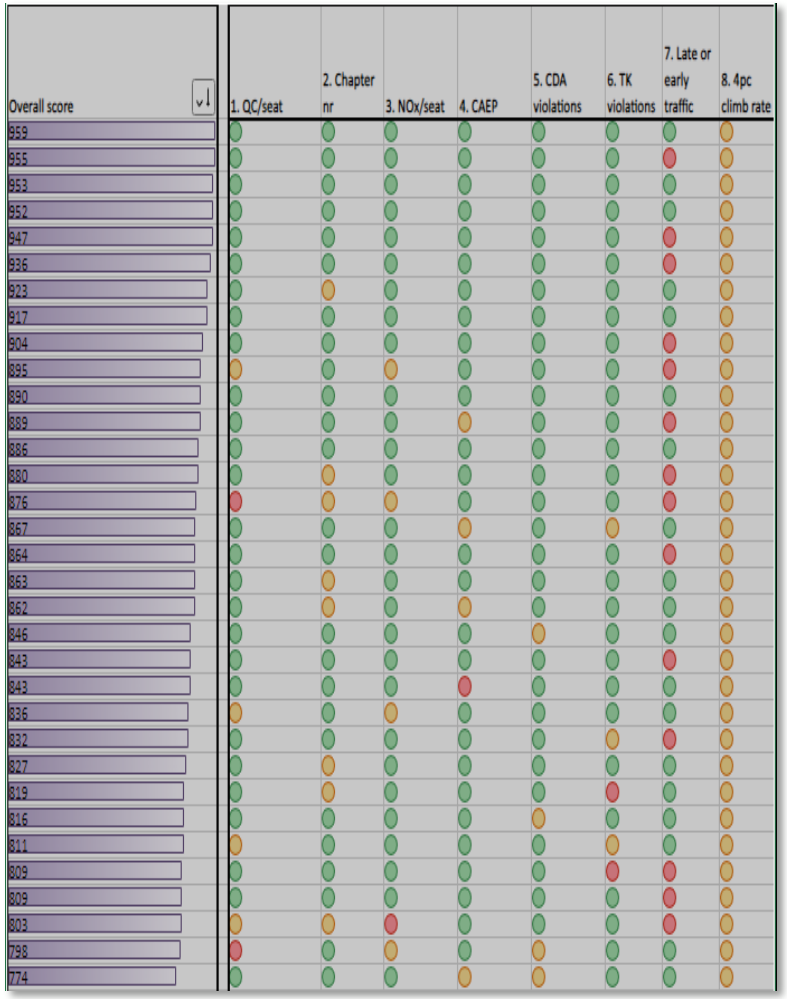
Q4 2019

	Airline	Score
1.	Scandinavian Airlines System	954
2.	Air Malta	934
3.	Oman Air	900
4.	Aer Lingus	896
5.	British Airways - short haul	889
6.	Air India	883
7.	Finnair - short haul	869
8.	Flybe	865
9.	United Airlines	864
10.	Singapore Airlines	856
11.	British Airways - long haul	848
12.	Austrian Airlines	846
13.	Delta Air Lines	841
14.	Etihad Airways	840
15.	Deutsche Lufthansa	837

Heathrow Fly Quiet and Green

Steps to drafting the program.

- A deep dive into all the operational and certification metrics available at Heathrow
- Inclusion of an additional data feed
- A desktop exercise to reduce the full list down to a number fit for inclusion in the new report that fits with the overall aim of the new program
- Participating in further meetings with the relevant Heathrow staff to finalise the possible candidates for inclusion in the new program
- Work with Heathrow on a scoring and weighting methodology for the revised program.
- Extraction of the data needed to populate the report
- Creating the first prototype



Thank you.