## HCNF 5 June 2019

PBN – unanswered questions and unresolved challenges

Stephen Clark and Dr. David Gilbert

### Context 1

Heathrow recognised the likely impact of PBN in its 2016 European consultation response Nothing has changed

comment

103

comment by: Heathrow Airport Limited

Whilst Heathrow Airport Limited fully supports airspace modernisation, this document does not support current UK CAA guidance and is not in line with current UK airspace projects such as LAMP. The time scale suggested here is unrealistic and could jeopodise these projects. In addition, as subsequent comments highlight, we have the following concerns:

- The Social Impact of PBN trials in the UK has been enormous, therefore this should be considered and not dismissed in one sentance.
- There does not appear to be an environmental assessment of this proposed change in terms of noise.
- The Benefit section takes no account of the cost of airspace consultation which results in an incomplete assessment.
- Mixed conventional and PBN operations are not supported by the UK CAA.

Consequently, this NPA is not supported by Heathrow Airport Limited.

response

Noted.

CNG Jun 2019

https://www.easa.europa.eu/sites/default/files/dfu/CRD%202015-01\_0.pdf

### Context 2

Minute of HCNF meeting 20 March 2019 (para 5.2)

lan Jopson (IJ) mentioned his work with the International Civil Aviation Organization (ICAO) looking at PBN practice around the world. He noted that those involved in the study included the International Coalition for Sustainable Aviation (ICSA). He advised that the work included case studies where PBN had been well received by communities and cited Toronto as an example, although it had got some negative publicity because some people had been adversely affected. He also noted that of the 99 PBN implementation plans that were reviewed, none of them had considered respite or alternation as Heathrow was currently doing. He advised that ICAO was preparing to publish the study and it should be available in the next few months. SC welcomed the work and wondered why the Government had committed to introduce PBN before the study was done.

#### What can be learnt from Toronto?

What evidence is there that the introduction of highly concentrated PBN flight paths - even with respite and alternation - can be acceptable around Heathrow?

### First - two questions regarding ICAO's study on PBN

The impact on communities of PBN trials at Heathrow was documented comprehensively in Anderson's report published in 2015



WESTERLY AND EASTERLY DEPARTURE TRIALS 2014 - NOISE ANALYSIS & COMMUNITY RESPONSE

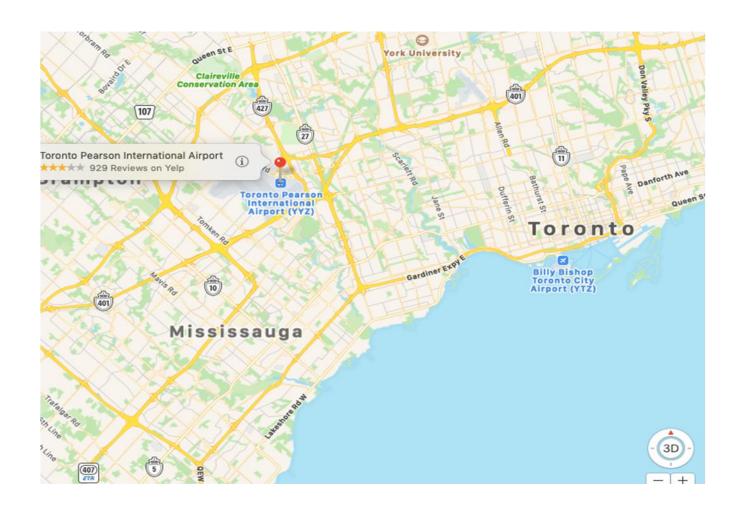
**HEATHROW AIRPORT LTD** 

JULY 2015

Was this highly relevant Heathrow 'local evidence' included in ICAO's study? Was this suggested to ICAO?

If it was included what conclusions were drawn?

### Toronto's Pearson airport - how does its location compare to Heathrow?



In terms of the numbers of people impacted by Heathrow (before expansion this accounts for 30% of all noise impacts in Europe)

The radical airspace changes proposed by Heathrow and the impact of change

Pearson's location close to Lake Ontario

### Toronto – evidence of residents' reaction to concentration

TRANSPORTATION

## Toronto residents unite to fight for their airspace

OLIVER MOORE > URBAN AFFAIRS REPORTER PUBLISHED JANUARY 8, 2016 UPDATED DECEMBER 28, 2017

0 COMMENT



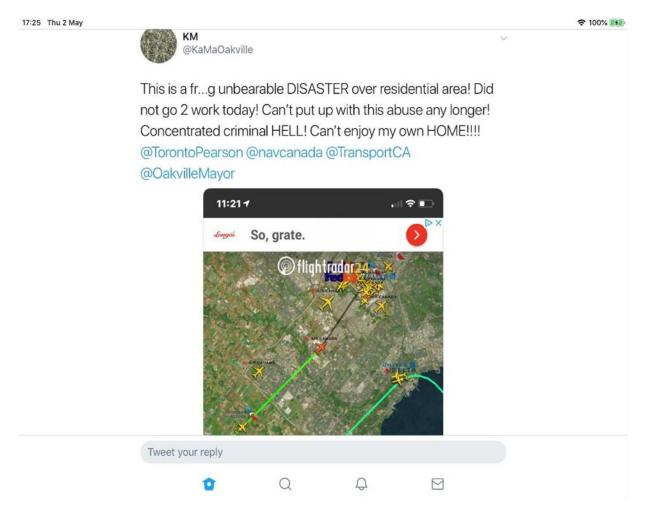
In 2012, Nav Canada shifted a key approach into Pearson airport and condensed flight traffic over a smaller area, changes which have been fought by local activist groups. (Photos by Fred Lum for The Globe and Mail)

Is Toronto simply a case of moving noise from some communities and concentrating it on others?

If so how can this help in the case of Heathrow?

What will life be like if you happen to live under a concentration zone?

## Toronto – evidence of extreme distress caused by zones of concentration



Is this the future around Heathrow – one of blighted communities?

Which areas will experience this fate?

How many people will be affected?

When will they know?

Will they be able to claim full their full costs if they have to move or insulate?

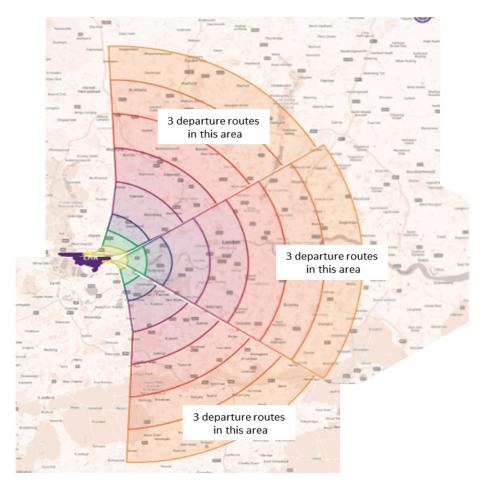
Can respite and alternation provide a solution?

### Can respite or alternation provide a solution in the case of Heathrow?

- what level of 'valued' respite can actually be achieved and for who especially if Heathrow expands?
- what will be the **effect of the proposed reduction in the 'quiet period'** from half to a quarter of the day on the living conditions of areas that are overflown?
- is there **enough airspace capacity** around Heathrow **to create acoustic separation** between routes and how far out will this be achieved (for example 65dB footprints are 3-3.5km across for 15-20km from SoR. 3 flight paths will impact a 9-11km width with 65dB+ events)?
- what will happen to communities affected by multiple routes or both arrivals and departures? What level of respite is actually available in these circumstances?
- what research on the physical and mental health impacts of being intensively overflown along concentrated routes even for part of the time has been commissioned by Heathrow?
- what conclusions did Heathrow and the DfT drawn from the analysis commissioned from the CAA in 2018 on the impact of splitting a single PBN route?

# What airspace capacity limitations will limit respite at Heathrow? (consider for example departures to East)

#### 9 Departures routes (Similar to West)



Heathrow has proposed **design envelopes** with each departure route having capacity of up to 17/hr, respite for 25% of time, 50% at half and 25% at full rate.

This results in an indicative total of **150 flights per route per day**. In reality for very many the situation will be far worse.

Many communities face the prospect of simultaneous noise impacts from two or three routes, resulting in no effective respite and hearing 15-25 (or more) planes over 65 dBLAmax on average per hour – one every 2 to 4 minutes throughout the day.

How far from the airport will people have to live to get effective relief from respite? How many people will fall within the N>65 contours?

Will route usage be distributed on a fair and equitable basis? To what extent will airline commercial decisions determine this?

What will happen to communities affected by departures and arrivals?

### Potentially affected area is at least half of London

### Unanswered questions and unresolved challenges

There is a complete lack of understanding of how extremely concentrated PBN routes can be implemented over densely populated areas around Heathrow on an acceptable basis, especially with reduced respite proposed by the airport and increasing awareness of the widespread highly damaging impacts to health, wellbeing, property values and community sustainability that will result.

NATs suggested at the last HCNF meeting that respite and alternation could provide a solution. However how can meaningful or valued respite be achieved in practical terms within the congested airspace around Heathrow with the number of ATMs proposed? How far from the airport will be impacted by multiple noise events from more than one route, and what will happen to living conditions under zones of concentration closer in? Which communities and how many people will be impacted?

In the light of a lack of answers but very strong warning signals, how can public consultation on concentrated PBN routes begin, especially given the highly densely populated areas on all sides of the airport? Residents potentially affected have a right to know the seriousness of the situation and the position has to be made clear to politicians.

Which organisation will be accountable if Heathrow's expansion and airspace change proposals cause substantial adverse physical and mental health damage to large numbers of people?

Until these questions are answered how can Heathrow, as a responsible corporation, proceed with the DCO?