**Airport Consultative Committee**

**ENVIRONMENTAL EFFECTS WORKING PARTY**

**10th January 2023 @ 10:00 hours,**

**Meeting held at Lulsgate House and virtually using Microsoft Teams**

**Agreed Minutes of the Meeting**

**Present:**

David Hall, Chairman

James Shearman, Head of Sustainability, Bristol Airport (JS)

Jacqui Mills, Public Relations and Community Manager, Bristol Airport

Laurie Vaughn - Wrington Parish Council (LV)

Gill Patch, Winford Parish Council (GP)

Matthew Sharp, Planning Manager

Alicia Fox- secretary

- **Apologies for absence**

Dee Mawn, North Somerset Council

Lindsay Howe North Somerset Council (RA)

Roger Wood, Yatton Parish Council (RW)

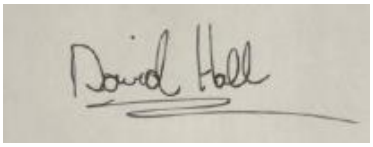
Hilary Burn, Cleeve Parish Council (HB)

- **Presentation on noise contour analysis from Nick Williams (NW), Bickerdike Allen Partners**

**Presentation can be seen in attachment 1**

NW introduced himself to the EEWP and then started his presentation with an introduction to Aircraft Noise Measurement.

What is sound?
Vibrations which travel though air (or another medium), most basic way to measure the sound is by changes in pressure caused by the vibrations (Pascals), however this is difficult to understand so an alternative measure is used called the Sound Pressure Level (SPL) which uses decibels.



Frequency is also important and is measure in Hertz which is how quickly the vibrations are moving. An average human can hear from 20Hz to 20kHz. In acoustics the frequency range is often divided up into discrete bands most commonly used are octave bands. The A -weighting network was developed to account for the human ear not being equally sensitive to all sound.

Sound is measured by a sound level meter, modern ones can perform a range of functions and are often linked to post-processing software to allow detailed analysis of data.
In many airports including Bristol (which has 3, one near Congresbury, one in Cleeve and one in Felton) there are permanent monitors installed which continuously measure the sound level.

Monitors are integrated with the aircraft flight data in order to match noise events with specific aircrafts.

Main metrics to assess aircraft noise are $L_{Aeq,T}$- average A weighted sound over a time period. $L_{AMAX}$ – maximum level measured, and SEL metrics- total sound energy of an event such as an aircraft flyover.

A standard approach in accordance with policy is to assess aircraft noise based on the $L_{AeqT}$ for the summer periods defined as 92 days from 16th June- 15th September inclusive, this represents the worse case in the uk.
Metric for $L_{Aeq,16h}$ s from 0700-2300h.

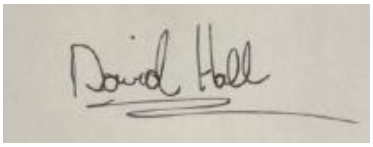
The $L_{Aeq,16h}$ correlated mostly with community response based on a study in 2017 by the CAA.

Bristol Airport has a sound insulation scheme for dwellings exposed to at least 57dBL $_{Aeq,16h.}$

Bespoke software is used to analyse the data which is called the Aviation Environmental Design Tool which is developed by the Federal Aviation Administration. This software contains a library of aircraft data and default flight procedures.

In order to produce the noise contours the following steps are followed:
-**Create model**
Location of the runways and routes followed by the aircraft is contained within publicly available data.
Local terrain data is obtained from Ordnance Survey, this allows for distance between the aircraft and the ground.
-**Process Aircraft Movement**
Obtain aircraft movement information, split data into lots of different categories: aircraft type, time period, runway end, operation, distance to destination and initial departure route. The number of flights in each category is determined and input into the software.
**-Plot Contour**
The software computes the noise level for every different aircraft operation at every location on a grid. Noise levels are then summed and averaged over the specified time period. Software then draws a contour based on the resulting grid noise of levels.

GP- 54dBL, $_{Aeq16h}$ will these dwellings ever be covered for noise insulation?



JS- 57dBL, $_{Aeq16h}$ is already below the government policy which is currently 63dBL but other airports are in line with Bristol which go to 57dBL, $_{Aeq16h.}$

LV- Monitoring equipment, which is permanently installed at the airport, is it automated calibrated?
JS- It is calibrated every night and then physically every year.
LV- is the measured data
NW- contours currently produced follow the methodology for the planning application. Look at the measured level at the aircraft and adjust if necessary.
LV- is the data historical from the last 12 months?
NW- for the insulation scheme is reviewed every January in collaboration with the airport we ask what they predict for the summer and then we use that along with long term data to put into place the predictions.

JS- The completed contour must be submitted to the Council by the end of January, but this is also the time that airlines can hand back any slots they no longer want for the summer. So our prediction is based on a worst case scenario, we populate up from the last busiest summer day. Nick then takes this on board when calculating contours.

LV- vertical aircraft taxi flights, will they be included in your software?
JS- they are 4-6 people seaters.
NW- we expect there will be a way to monitor it but as it stands there is nothing in the library but am confident there will be a way to do this.

LV- CAP2250 Noise attitudes around Heathrow/Gatwick, interesting attitude around respite. The perception of noise was far more beneficial if residents knew there were respite periods. What scope is there to make the scope of 70/30 more even?
JS- runway use is determined on the direction of the wind which is out of our control.
NW- Heathrow when talking about respite are referring to which runway they use and therefore impact different communities. It is so unpredictable so predicting respite for Bristol would be tough.

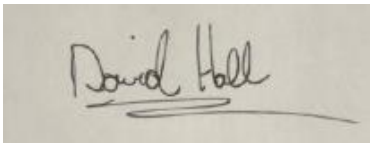
**Action- JS to ask air traffic control if they can use a more even spread on the runways when safe to do so.**

- **Minutes of the previous meeting held on 4th October 2022**

The minutes were agreed as a true record of the meeting.

- **Matters arising from previous meetings**

  Request to contact DfT in relation to their studies and what Bristol Airport can do to help- JS still awaiting a response
  Hannah Pollard to attend this meeting- she will attend the meeting in April
  LV- Day/nighttime movements requested- JS these are provided in the main ACC pack.



- **Sustainability Update- 4th Quarter 2022**

**Attached in appendix B**

- Jet Zero Council were on site looking at how to deliver jet zero airports.
- Bristol Airport had their first trial hydrogen double decker bus on site.
- Jet2 vehichles are all becoming electrical.
- An order has been placed for another 3 electric buses.
- Groundwork Trust partnership work is going ahead (presentation at the ACC meeting)
- Maintained certifications and recertification for ISO 14001
- Onsite recycling levels have dropped from 2021- 57.4% to 2022- 49%.
- CDA for the year are above the prediction of 90% and were 93,3% for main airlines.
- Noise complaints- 405 in the year.
- Gas use- has increased from 2,450,673 kWh to 2,646,797kWh.
  Electricity use is 15,563,908 compared to 11,833,796 in 2021.

**Noise Action Plan**

- Required to submit new plans under Environmental Noise (England) Regulations 2006 by February 2024, but Bristol looking to submit by September 2023.
- There are 19 actions in total.
  1. 14 actions including FEGP feasibility and review of Ground Noise have been completed.
  2. 4 actions are on track including CDAs being above 80%.
  3. 1 action remains outstanding but hopes to be complete in 2023- Aircraft fee differentials.
- Next steps: DEFRA have said the content a Noise Action Plan must cover, detailed in appendix B.

**Noise complaints:**

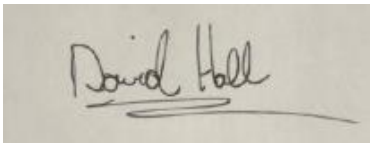
October 2022: 21

November 2022: 5

December 2022: 11

**Types of complaint:**

Day and night noise were the main types of complaints.



**Areas of Origin:**
Highest overall region was Bath followed by Weston Super Mare.

**Airspace Activity – Flight Tracks**
CDAs target is a minimum of 80% and for the last quarter the airport remained above this.

**Day and Night Monthly Noise Climate table**
Not much change between 2019 and 2022 as shown in the table.

DH- Lead based fuel has been in the press of late, is there any of this used in small aircraft on site?
JS- Fuel for the aircraft from the Airport use the JetA1 fuel so as far as aware there would be no onsite lead-based fuel even at the air school.

JS- to check with the flight school on fuel use and report back to EEWP.

- **Planning update**

12mppa Planning Permission

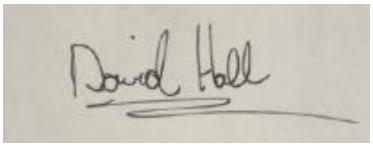
The Planning Inspectors' recommendation and Secretary of State's decision on the associated Compulsory Purchase Order have not yet been received.

The Appeal Decision is currently subject to Statutory Challenge. Decision expected anytime in the next couple of months.

Material to discharge four conditions was required to be submitted to NSC within 6 months of the 12mppa decision date. This material has been submitted (Ref: 22/P/1863/AOC), but the discharge of condition application is still currently under consideration. The Airport submitted material to discharge the following conditions:

- 8 – Air Quality Action Plan – (Further discussion with NSC Officers necessary)
- 9 - Climate and Carbon Change Action Plan - (Further discussion with NSC Officers necessary)
- 10 – Scheme for installation of electric vehicle charging points – (agreement in principle with Highway Officers)
- 11 – Strategy for increasing number of electric taxis – (agreement in principle withHighway Officers)

An application to the Secretary of State to designate Bristol Airport as fully coordinated was made in the summer. BAL working with DfT to address some questions raised. Likely to be another DfT public consultation



**Permitted Development Consultations**

A permitted development consultation has been submitted to NSC for the installation of solar panels on three sites south of the runway (totalling 1.145ha). The reference is 22/P/2376/AIN. The scheme will help to deliver the Airport's net zero ambitions and to meet its public target of having 25% of its energy generated by its own renewable sources by the end of 2025. NSC confirmed they had no objections on 16 December 2022. Tenders for the work are currently under consideration and it is hoped the panels will be in place by the summer.

**Update on Applications Submitted to North Somerset Council**

A discharge of condition application in relation to the 12mppa four conditions was submitted in July (see above).

**Consultations and Applications to be Submitted in the Next Quarter**

Consultation on MSCP2 and the Public Transport Interchange is likely to occur in early February. The scheme already has consent as part of the 10mppa permission, but we are looking to make some minor changes to the design. We'll therefore submit a Non-Material Amendment to NSC which will be consulted upon. This will also be accompanied by a permitted development consultation for onsite road layout changes to serve the scheme.

As previously reported, we are also looking to locate an EV Hub adjacent to Lulsgate House. A PD consultation for the new Hub is likely in the next quarter. The Hub will provide rapid and ultra rapid charging facilities for electric vehicles – meaning a charge time could be as low as 10 minutes. It will have a food and beverage offer, along with waiting facilities. We are looking to relocate the current free waiting area to be immediately adjacent to the new Hub, making this a more attractive designated waiting area, hopefully meaning fewer taxis and passengers waiting in inappropriate locations and residential areas.

(Due to the nature of operational development, there is the possibility of additional GPDO requests /planning applications in the next quarter.)

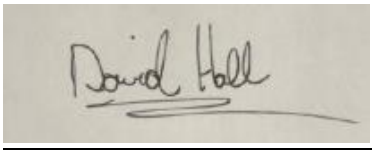
- **Any other business (AOB)**

GP- any applications for villages to have EV points installed?

JS- some applications have been made to the Community Fund.

JS- announced he is leaving the business on the 14th March so this will be his last EEWP meeting.

GP and DH- Thanked him for his help and support of the committee.



**Dates for future Meetings 2023**

- **To enable future meetings to be conducted and minutes produced to be included in the Consultative Committee packs this is the date for the next Environmental Effects Working Party:**
- **4th April 2023 10.00**

**Distribution:**

Members of the Environmental Effect Working Party, plus the Airport Consultative Committee.