Aircraft noise maps for Edinburgh Airport (EDI) are commissioned by the airport and produced by the Environmental Research and Consultancy Department (ERCD) of the Civil Aviation Authority (CAA).

The noise contours maps for EDI are produced using the CAA’s Aircraft Noise CONtour (ANCON) model.
Noise Maps are presented in different forms

$L_{\text{max}}$ represents the peak noise observed by an overflown observer.

$SEL$ represents both the peak and duration of an event.

$Leq$ is an average over a period of time.

$L_{\text{den}}$ is an average with different weighting given to day and night exposure.
To produce noise contours maps the ANCON model relies on reference flight profile data of height and speed. This data is obtained by averaging radar measurements at Gatwick airport for each aircraft type.

Based on the reference flight profile data, the engine power setting/thrust is derived, which is then used, with the aircraft position and speed, to estimate single event aircraft noise.

To produce $Leq$ noise maps the single event noise aircraft noise information is combined with EDI traffic data (i.e. how many aircraft of what types on each flight path operating out of Edinburgh) to aggregate and map predicted average aircraft noise (taking into account local topology).

For EDI, it is further assumed that aircraft follow the nominal SID track. Dispersal/Vectoring is not taken into account.
An example of $L_{max}$ footprint map
EA319C aircraft type on TALLA SID RWY24
Source: ERCD via EAL.
An example of SEL footprint map
EA319C aircraft type on TALLA SID RWY24
Source: ERCD via EAL.
An example of Leq map
Average derived from all flights in 2016
An example of how noise maps are used to evaluate flight path options.
Source: ERCD technical note (v.2): Edinburgh airport – new SIDs ACP noise assessment
These maps have been used to quantify the number of people that are exposed to the various levels of aircraft noise caused by the proposed routes.

They are also used to influence land-use planning decisions.

EANAB members have not had the availability of expert advise and the uncertainties illustrated are presented to EAL in order that they may be fully explained.