Every person’s reaction to noise is different and subjective. To better describe aircraft noise levels, the Australian Government, in consultation with industry and the community, developed a system called the N70.

**The N70**

An N70 diagram shows contour lines over a map of Brisbane. The contour lines show the area which a stated number of flights (eg 5, 10 or 50 flights) generating noise of 70 decibels or more occur in a specified period of time.

Brisbane Airport Corporation (BAC) has undertaken extensive aircraft noise modelling for a range of existing and future scenarios, including when Brisbane’s new runway is operational. These are available to view as N70s online at bne.com.au/flightpaths

An example of an N70 diagram and the information it contains is overleaf.

**Why 70 decibels?**

- A noise level of 70 decibels outside a building would generally result in an internal noise level of approximately 60 decibels, if windows are open.
- This noise level is considered sufficient to disturb conversation, in that a speaker would generally be forced to raise their voice to be understood, or some words may be missed in speech from a TV or radio.
- If the windows were closed you would expect the noise inside to decrease by a further 10 decibels to 50 decibels.
- If you are outside, you would experience a noise level of 70 decibels.
- The diagram (at left) gives an indication of the types of decibel levels experienced from a range of typical everyday situations.

**What is a decibel?**

Noise is measured on a logarithmic scale with the decibel (dB) as the unit of measure. Measurements of noise usually have a correction factor applied to reflect the sensitivity of the human ear. This factor is referred to as “A-weighting” and environmental noise is usually measured in dB(A) units.

The noise level of normal daytime urban-based activities typically varies between 40dB(A) and 85dB(A). On this scale, a change in noise level of 10dB(A) is perceived to be a doubling or halving in loudness. For example, most humans perceive a noise event of 85dB(A) to be about twice as loud as an event of 75dB(A).

**Typical sound levels**

- **Emergency Siren**: 140+ dB(A)
- **Construction Site**: 90 dB(A)
- **Modern twin-engine jet (at take-off at 152m distance)**: 81 dB(A)
- **Roadways**: 80 dB(A)
- **Passenger car (60km/h at 7m distance)**: 70 dB(A)
- **Cafes**: 50-70 dB(A)
- **Libraries**: 30-40 dB(A)

For information visit: bne.com.au/flightpaths
There are many sources of information to learn more about aircraft noise at Brisbane Airport in addition to the N70s online:

- Read the Flight Path Monitoring System Reports for Brisbane at www.airservicesaustralia.com
- View aircraft movements and noise levels on Webtrak at www.airservicesaustralia.com/aircraftnoise/webtrak
- Utilise the Flight Path Tool at bne.com.au/flightpaths to understand flight path and noise impacts on a selected address in Brisbane.
- Read the Brisbane Airport Master Plan 2020, which looks at planning for the airport over the next two decades, at bne.com.au/masterplan