

Appendix 4.11 – Literature Review of Overseas / International Noise Criteria for Emergency Helicopter Operations during Evening and Night-time Periods

A literature review was conducted to investigate the noise criteria adopted in several similar overseas cities / countries (e.g. London (United Kingdom), California (United States), Singapore, Hamilton (New Zealand) and Victoria (Australia)) for helicopter noise assessment during evening and night-time emergency operation. Details of the findings are summarized as follows:-

United Kingdom -London

With reference to "Mayor of London - The Mayor's Ambient Noise Strategy" Para 4C.52, helicopter operation at night should normally be limited to emergency services. In general, proposals for private heliport facilities shall be resisted, with the exception of predominantly emergency use facilities as stated in Policy 53.

The Mayor's Ambient Noise Strategy

https://www.london.gov.uk/sites/default/files/mayors_noise_strategy.pdf

United State- California

According to the California Aeronautics Act - Public Utilities Code (PUC 21662.4(a)), the emergency aircraft flights for medical purposes by law enforcement, firefighting, military, or other persons who provide emergency flights for medical purposes are exempt from local ordinances adopted by a city, county, or city and county, whether general law or chartered, that restrict flight departures and arrivals to particular hours of the day or night, that restrict the departure or arrival of aircraft based upon the aircraft's noise level, or that restrict the operation of certain types of aircraft.

Public Utilities Code Section 21661-21669.6

<http://www.leginfo.ca.gov/cgi-bin/displaycode?section=puc&group=21001-22000&file=21661-21669.6>

Singapore

With reference to the Singapore General Aviation Requirements – Helicopters published by the Civil Aviation Authority of Singapore, all Singapore helicopters required to comply with the noise certification standards as stated in Para 51 of the Air Navigation Order and carry the noise certificate on board. However, no statutory helicopter noise criterion for emergency operation during evening and night-time periods was identified in Singapore.

Singapore General Aviation Requirements – Helicopters

[https://www.caas.gov.sg/caasWeb2010/export/sites/caas/en/Regulations/Safety/Singapore_General_Aviation_Requirements_SGAR/SGAR - Helicopters/SGAR Helicopter Rev 1.pdf](https://www.caas.gov.sg/caasWeb2010/export/sites/caas/en/Regulations/Safety/Singapore_General_Aviation_Requirements_SGAR/SGAR_-_Helicopters/SGAR_Helicopter_Rev_1.pdf)

Para 51 Control of Aircraft Noise of the Air Navigation Order

<http://statutes.agc.gov.sg/aol/search/display/viewPrint.w3p;ident=74ae2ac5-c42f-4703-bcf3-835f6b32a0fd;page=0;query=Id%3A%227895a392-6dba-453f-bf56-6b7790b95550%22%20Status%3Ainforce;rec=0>

New Zealand - Hamilton

According to the Item (b)ii of Section 25.8.3.5 - Helicopter Landing Area Noise under Proposed District Plan published by Hamilton City Council dated 13-Nov-2012, the helicopter noise standards in Rule 25.8.3.5 (d) and (e) shall not apply to helicopters engaged in military or emergency operations including search and rescue or medical emergencies.

Hamilton City Council – Proposed District Plan

<http://www.hamilton.govt.nz/our-council/council-publications/districtplans/proposeddistrictplan/Documents/Proposed%20District%20Plan%20Volume%201.pdf>

Australia - Victoria

The Noise Control Guidelines published by the Environment Protection Authority (EPA) of Victoria Government stated that the operation outside the hours between 7 am and 10 pm shall not be permitted except for emergency flights.

Noise Control Guidelines

<http://www.epa.vic.gov.au/~media/Publications/1254.pdf>

The findings revealed that there is no statutory evening and night-time noise criteria adopted for emergency helicopter operation such as medical emergencies, law enforcement, firefighting and military in those reviewed overseas cities / countries, and day-time noise criteria are not applied to evening and night-time periods for the emergency helicopter operation. The Project has similar situations to those reviewed cities / countries.