

HELICOPTER OPERATIONS

Helicopter operations require flexibility, so that sometimes helicopters are required to fly over residential areas that are rarely flown over by other aircraft. This means that noise from helicopters can be particularly noticeable to people who are not accustomed to aircraft noise on a regular basis.

This factsheet explains how helicopters operate and what action can be taken to reduce their noise impact.

At all times, the safe operation of aircraft is the primary concern of air traffic control and pilots.

Helicopters enable services to be provided that are of benefit to communities, including fire fighting, crime prevention, search and rescue, construction and media coverage.

CAUSE OF HELICOPTER NOISE

The main cause of noise from a helicopter is the rotors, especially when a helicopter hovers for a prolonged period over a single location. Most helicopters (those registered since December 1990), are certified to international noise standards which are implemented in Australia through the *Air Navigation (Aircraft Noise) Regulations 2018*.

These noise standards apply to the design and production of aircraft and specify the amount of noise that may be emitted by an aircraft model/ type. The regulations are administered by the Department of Infrastructure and Regional Development.

A small number of helicopters registered continuously before December 1990 do not require a noise assessment as part of their certification process.

FLY NEIGHBOURLY AGREEMENTS

Several airports and airfields have established Fly Neighbourly Advice or Fly Neighbourly Agreements (FNAs). These are established between aircraft operators and communities or authorities (normally airports or local councils) to assist in reducing the impact of aircraft noise on local communities. These agreements have proved effective at raising awareness among operators of noise minimisation practices.

FNAs for helicopter operators will normally include some or all of the techniques in the Helicopter Association International's Fly Neighborly Guide (new.rotor.com/portals/1/Fly%202009.pdf) such as avoiding noise sensitive areas by following unpopulated routes (for example, waterways), or areas with high ambient noise levels such as highways.



HOVERING OVER BUILT-UP AREAS

Wherever possible, helicopter pilots should avoid hovering over populated areas. This includes choosing locations over freeways, commercial areas and industrial precincts. Such advice is often included in FNA agreements.

If a helicopter pilot wants to cross a 'controlled' zone around an airport, it is sometimes necessary for air traffic control to hold the helicopter in one place until it is safe. This is why sometimes helicopters have to hover over locations when there is no obvious reason to do so.

HEIGHT OF HELICOPTER OPERATIONS

At most airports or helipads, standard departure and arrival procedures ensure that as far as possible, helicopters do not fly low over residential areas. Helicopters will be at lower levels when in process of take-off and landing, but once in flight, they should not fly over populated areas below 1000 feet (ft).

Helicopters may fly below these levels within specified areas, though most helicopters are forbidden from flying at less than 500ft (152m) above the ground, unless during take-off or landing. This helps to reduce their noise impact.

Occasionally, helicopters need to fly at lower levels. This could be, for example, for law enforcement, search and rescue, surveying or construction purposes.

If a helicopter operator needs to fly below 500ft for private operations or aerial work operations, authorisation is required from the Civil Aviation Safety Authority (CASA).

In addition, helicopters that are being used in response to an emergency are permitted to operate outside normal procedures, should the circumstances demand.

HELICOPTER TRAINING

Pilots are required to undertake set procedures when training to ensure that they have all the necessary skills to fly safely. When conducted in the vicinity of a helipad, this process is called circuit training.

Level flight circuit training (ie. not take off or landing) for helicopters cannot take place less than 500 ft (152 m) above the ground. Additionally, operators and

training organisations will limit the number of circuits, hours, and the number of aircraft permitted to fly over residential areas to help reduce the impact of helicopter noise.

LANDING SITES

Helicopter landing sites (HLSs) are subject to land use planning and development approval processes. State governments are responsible for policies relating to the siting of HLSs and local governments generally approve or decline planning applications.

CASA has published Guidelines for the Establishment and Use of HLSs, which take into account noise considerations, to assist planning authorities, available at <https://www.casa.gov.au/files/922pdf>

WEBTRAK

Historical and near real-time noise data for eight Australian airports is displayed by Airservices WebTrak

service, available at www.airservicesaustralia.com/aircraftnoise/webtrak

WebTrak provides information about where and how high aircraft — including helicopters — fly over metropolitan areas.

MORE INFORMATION

The Civil Aviation Safety Authority - www.casa.gov.au

Department of Infrastructure and Regional Development - www.infrastructure.gov.au

International Civil Aviation Organization - www.icao.int

Helicopter Association International - www.rotor.com