4.4 Predictions
The Standard is based upon the noise actually received at an affected land use. In the planning of a
helicopter landing area, prediction techniques may be used for assessment of the noise. Field
measurements are desirable to validate any predictions.

5 LAND USE PLANNING

5.1 Helicopter landing area

5.1.1
Where the proposed operations of the helicopter landing area are such that the noise from the helicopters
does not exceed the limits given in table 1 anywhere outside the property boundary of the helicopter
landing area, no further action is needed.

5.1.2
Where the proposed operations of the helicopter landing area are such that areas outside the property
boundary are likely to receive noise exceeding the limits given in table 1, compatible land use planning
provisions shall be implemented to ensure that adverse effects are mitigated.

5.2 The helinoise boundary

C5.2
Use of the helinoise boundary concept provides a simple means for local authorities to manage the
excess noise from a helicopter landing area and ensure compliance with any rules set. In this
concept for environmental noise management, the users of the helicopter landing area predict the
noise they wish to make in the future. If all excess noise (over the limits given in table 1) will be
contained within the boundary of the site of the helicopter landing area, then no further action is
needed. But if the noise they wish to make will not be so contained, then the consent authority may
designate a larger area (bounded by the "helinoise boundary") in which to contain the noise. In
determining whether to establish a helinoise boundary, and the area of the land to be affected, the
consent authority will be guided by the relevant provisions of the Resource Management Act 1991.
In general, this determination will involve a balancing of the value to the community, of the helicopter
landing area, with the costs involved for strict land use controls in the area inside the proposed
helinoise boundary, to decide if such an area can be left aside for noise use or if only a smaller area
can be afforded. (The larger the area, the greater the cost of noise mitigation. The smaller the area,
the more restrictions on helicopter activities.) Once the size of area has been decided, and fixed on
a map, the users of the helicopter landing area shall arrange their operations so that all noise in
excess of the limits is kept within the helinoise boundary, and noise monitoring may be used to
ensure compliance. Similarly the local authority shall apply strict land use control in that area.

5.2.1
The helinoise boundary (similar to the Ainoise Boundary in NZS 6805) defines an area of land subject
to noise from helicopters in excess of the relevant limits in table 1, and within which no new incompatible
land uses are recommended unless adverse effects are mitigated (see 5.3). There are no restrictions on
helicopter noise received within the area enclosed by the helinoise boundary. Helicopter landing areas
shall be managed so that the limits given in table 1 (or set in a resource consent conditions or plan) are
not exceeded at or outside the helinoise boundary. Noise monitoring may be appropriate to ensure
compliance.

5.3 Locating the helinoise boundary

5.3.1
A projection should be made of future helicopter operations to determine the sound exposure contours
corresponding to the relevant limits in table 1. A 10-year period (or long term) projection is recommended
as the basis of the projected contours, their location of which may be estimated for planning purposes
using the FAA Helicopter Noise Model or other appropriate means.

5.3.2
Future operations should be projected in terms of helicopter types (current and future); flight frequencies;
varying in operations within a year (planning for the likely busiest week of operations); current and future
capacity and any proposed development.
5.3.3
The preliminary assessment of the location of the sound contours and the proposed helinoise boundary, which in the case of a residential area shall enclose the 3.5 pasque (or 50 Ldn) contour, should be carried out with consultation between all interested parties.

5.3.4
Only noise resulting from helicopter operations shall be considered when determining the location of the helinoise boundary. Ancillary operations such as maintenance are outside the scope of this Standard, and shall be assessed using NZS 6802 Assessment of environmental sound.

5.3.5
After considering the relevant planning objectives, and deciding whether the area requested can be set aside for helicopter noise use, or whether a larger or only a smaller area is appropriate, the consent authority should incorporate into its plan a map showing, survey precise, the proposed helinoise boundary, and the date of implementation.

5.3.6
The formal determination of land use planning involves the public process set out in the Resource Management Act 1991 First Schedule (Preparation, Change and Review of Policy Statements and Plans Part I). If the airport operator, local authority or any other affected or interested party cannot agree on the location of the helinoise boundary, appropriate remedies exist within the Resource Management Act (as outlined in the First Schedule Parts I and II) for the matter to be referred to the Planning Tribunal.

5.3.7
Having completed the planning process the local authority shall take such steps as are necessary to give effect to the compatible land use measures recommended in 5.3. The operator of the helicopter landing area shall ensure that noise from helicopter operations does not exceed the limit at the helinoise boundary.

5.3.8
In some cases, an area may be subject to land use planning measures associated with the application of NZS 6805 Airport noise management and land use planning. To ensure consistency between the application of the two Standards, the position of the outer control boundary set according to NZS 6805 should take into account the position of the helinoise boundary for noise from helicopter landing areas. The land use planning measures recommended in 5.3 are the same as those recommended in NZS 6805 for areas within the outer control boundary.

5.4 Recommended land use planning measures inside the helinoise boundary

5.4.1
New residential uses, schools, and hospitals shall be prohibited unless a district plan permits such uses, subject to a requirement (such as the production of an acoustic design certificate) to incorporate appropriate acoustic insulation to ensure a satisfactory internal noise environment (refer Table 1 Item (v)). Alterations or additions to existing residential uses should be fitted with appropriate acoustic insulation and encouragement should be given to ensure a satisfactory internal environment throughout the rest of the building.

C5.3.8
In general, helicopter noise will be relatively insignificant at a major airport, and noise impact will be dominated by the subsonic jet aeroplanes.