Everybody Needs **Go**

Sometimes, in areas of high traffic, aviators need to take a proactive approach to manage their noise 'footprint'. That calls for a conscious effort to minimise the burden on surrounding land owners.

Often aero clubs, aerodromes, and other working groups establish 'fly neighbourly' procedures to reduce the impact of their noise in sensitive areas.

By being proactive and engaging with the community, local aerodromes can help promote flying neighbourly, as proved by the Motueka Aerodrome Operations and Safety Committee.

Recently, Motueka aerodrome advocates met with local residents to discuss aerodrome operations. Residents raised concerns about "invasive and destructive" aircraft noise.

As a result, the Motueka Aerodrome Operations and Safety Committee revised their Memorandum of Understanding (MOU) to include neighbourly flying procedures.

The MOU is included in the Motueka Aerodrome Management Plan, which can be found on the Tasman District Council web site, www.tasman.govt.nz, search "MOU".

Taieri Transit Lane Troubles

In 2014, Dunedin's Taieri VFR Transit Lane T957 was extended to reduce congestion and accommodate circuit traffic.

Unfortunately, following that change, some operators began to cut the corner of the control zone at East Taieri, without a clearance from Air Traffic Control (ATC).

Raymond Bremer, President of the Otago Aero Club, explains that a number of those airspace busts can be attributed to the rising terrain within the transit lane – which also creates problems for local residents.

"When travelling south, some people follow the T957 from Riccarton Road to Saddle Hill. However, on this route it's not possible to remain at 1100 ft and reach T956 without breaching minimum ground height.

"Additionally, if you're flying within T956 at 1500 ft along the ridge of Saddle Hill, there's only a few hundred feet between the aircraft and the ground. This is both illegal, and offensive to those on the ground with houses, farms, and livestock.

"In the interests of good neighbourly relations, I suggest that those wanting to remain within the transit lanes should track via the motorway or along the Chain Hills," says Raymond.

Roger Shepherd, CAA Investigating Officer, reminds pilots that ATC instructions, or airspace vertical limits depicted on a Visual Navigation Chart, are no excuse for breaching minimum height rules – there are few exceptions.

"There are literally ways around the problem. You can take another route, or for those with transponders, ask Dunedin ATC for a clearance," says Roger.

Low Flying Zones (LFZs)

AIP ENR 5.3 s2 *Low Flying Zones* describes an LFZ, and lists the respective 'using agencies'. The using agency (usually a flight school or aero club) is responsible for LFZ oversight.

Rule 91.131 *Low flying zones* contains the requirements for operating in an LFZ. That includes the requirement for authorisation by the holder of a flight instructor rating and being briefed on operating procedures. That briefing would include any noise abatement procedures by the using agency.

LFZs are established (with the consent of affected landowners) when the Director approves a location in accordance with the provisions of rule 71.163 *Low flying zones*.

Photos: istockphoto.com/L-Hamilton, istockphoto.com/AndyGaylor, and istockphoto/speedkup

od Neighbours

When entering an LFZ, maintain 500 feet agl until you cross the boundary. During LFZ operations, keep your flight path away from any livestock or buildings, and take extra care when climbing or descending. It's a good idea to keep high ground between your aircraft and any noise-sensitive areas, where possible. When vacating, you need to be 500 feet agl before reaching the boundary.

The use of an LFZ is a privilege, not a right. As the pilot, it's your responsibility to follow the operating procedures while keeping an open dialogue with the using agency.

By the same token, the using agency needs to communicate with affected landowners, and satisfy the Director that it has their continued consent. If land changes hands, the using agency must advise the CAA, and gain the consent of the new land owner.

Reducing Noise Nuisance

Before flying, you need to be aware of any MOUs or procedures that could affect your planned flight. That comes down to local knowledge and prior planning.

Your departure path should keep you clear of noise-sensitive areas, but not at the expense of your safety.

It's worth emphasising that houses, particularly those in rural areas, shouldn't be used as reference points for training or other manoeuvres.

In residential areas, noise nuisance is often judged by the level of ambient background noise present at the time. If you need to operate near a populated area, try to avoid flying between late evening and early morning.

Marc Brogan, CAA Examiner of Flight Training and Flight Operations, says don't dismiss feedback from the public.

"If you receive feedback, in-house or otherwise, welcome it. Also, keep good records of any issues that occur."

Fixed Wing

To reduce noise nuisance when departing, you should commence your takeoff from the runway threshold, reducing climb power as soon as safe and practicable.

Helicopters

Martin Gambrill, CAA Flight Operations Inspector of Helicopters, says that helicopter noise levels vary depending on the size of the helicopter and design of the main and tail rotor systems.

"Piloting technique can greatly reduce noise footprints. Try to avoid high energy manoeuvres such as rapid roll rates and pitch change that will cause 'blade slap' – fly smoothly.

"Avoid prolonged hovering near noise sensitive areas and flying a steep takeoff profile to minimise noise exposure," says Martin.

The *Fly Neighbourly Guide*, produced by the Helicopter Association International, also refers to blade slap, commenting that high tip-speed rotor designs flown at high airspeeds are the worst offenders.

It recommends minimum altitudes for helicopter pilots when flying over noise-sensitive areas:

» Light/small helicopters should fly at no less than 1000 ft agl

» Medium helicopters should fly at no less than 2000 ft agl

» Heavy/large helicopters should fly at no less than 4000 ft agl.

The guide also outlines how temperature affects noise.

Temperature has two effects on sound. One is the tendency of warm air to be more turbulent than cool air, and therefore, to disperse and decrease its nuisance effect.

Temperature also decreases with altitude. Lower temperatures lead to higher advancing blade tip speeds, which increase the magnitude of blade slap. ■