// A T6C Texan II conducting navigation training. All photos courtesy of the RNZAF.

CIVIL AND MILITARY AIRCRAFT SHARING AIRSPACE

There have been some close calls, so here's a heads-up from the RNZAF to look out for military aircraft conducting low-level flying.

At virtually any time, between seven and twenty pilots or trainee instructors are training with Number 14 Squadron and the Central Flying School of the Royal New Zealand Air Force, flying the T6C Texan II.

For two to three months, the students learn about low-level visual navigation. It's preparing them for the operational uses of low flying such as tactical airborne resupply, helicopter troop insertions and search and rescue operations.

They can be doing this training in uncontrolled airspace, virtually anywhere in the country.

Low flying in the Texan is at 250-500 ft AGL and speeds between 180 and 240 kts. That speed and close proximity to terrain can make for high pilot workload. And that can make it challenging for the students to see obstacles or hazards until they're within close range.

Air force tactical pilotage charts display hazards such as transmission lines and towers. But another significant threat – not on the charts – is other low-flying aircraft; for instance, those conducting agricultural operations.

The RNZAF teaches its pilots to, at all times, 'know – see and avoid' hazards as far as is practical. Notwithstanding this all pilots maintaining a vigilant lookout may be the single most important way to avoid close calls or mid-air collisions. Sometimes though, even with the most vigilant lookout, other aircraft may be missed or obscured by terrain.

Accurate and regular radio calls and active transponders, however, increase aircraft visibility.

The T6C Texan has TCAS (traffic collision alerting system) which 'interrogates' the transponders of nearby aircraft and provides an alert to the pilot – although it doesn't provide avoidance instructions.

So if a civilian aircraft has a transponder, its pilot should make sure it's active – preferably mode C or S to provide information about altitude.

Military helicopter training is currently done *without* TCAS.

During low-level training, the Augusta 109s, NH90s, and Sea Sprites operate between about 100 ft and 250 ft AGL, and at about 120 kts. But they can also be hovering or stopping anywhere, as well as operating right down to the ground, particularly in mountainous areas.

Without TCAS, they're relying solely on visual look-out and radio comms to know, see and avoid.

Regular and accurate position reporting by civilian pilots, therefore, is essential to building the low-flying student's situational awareness – and avoiding a collision.

Air force C-130s are equipped with TCAS, and operate between 250 ft and 500 ft, and about 210 kts, in low-flying training.

As with the Texans and the helicopter fleet, expect the C-130s anywhere in uncontrolled airspace, except built-up areas, restricted or danger areas, and civilian low-flying zones.

Occasionally the RNZAF may host foreign militaries during combined training exercises and there can be a number of other aircraft operating as part of the same exercise.

The RNZAF often requests a NOTAM be issued for periods of low flying by the Texans and other fleets, and it sends out a 'low level flight advice' (LLFA) to a number of civilian operators.

The RNZAF is always keen to have closer contact with general aviation when there's high-intensity flying planned, such as with a large agricultural operation.

// At virtually any time, the Texan can be flying in uncontrolled airspace near you.

// You can get low level flight advice (shown here) from the RNZAF.

If your organisation is planning such activity, the air force would therefore, be grateful to hear from you via this email address: oh.a3.wk@nzdf.mil.nz

If you want to receive LLFAs, or receive more information, use the same email address.