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# In, out, and around the Manawatū

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# Abbreviations

Note: Throughout this booklet all altitudes are above mean sea level (AMSL) unless otherwise stated.

<b>ACAS</b>	Airborne collision avoidance system
<b>ADS-B</b>	Automatic dependent surveillance-broadcast
<b>AGL</b>	Above ground level
<b>AIP</b>	Aeronautical Information Publication
<b>AMSL</b>	Above mean sea level
<b>ATC</b>	Air traffic control
<b>ATIS</b>	Automatic terminal information service
<b>CDTI</b>	Cockpit display of traffic information
<b>CFZ</b>	Common frequency zone
<b>CTR</b>	Control zone
<b>FISB</b>	Flight information service broadcast
<b>GAA</b>	General aviation area

<b>GPS</b>	Global positioning system
<b>IFR</b>	Instrument flight rules
<b>MOA</b>	Military operating area
<b>NM</b>	Nautical mile
<b>NORDO</b>	Non-radio equipped
<b>NOTAM</b>	Notice to airmen
<b>PAL</b>	Pilot-activated lighting
<b>RNZAF</b>	Royal New Zealand Air Force
<b>RWY</b>	Runway
<b>SFC</b>	Surface
<b>UNICOM</b>	Universal communications
<b>VFR</b>	Visual flight rules
<b>VMC</b>	Visual meteorological conditions
<b>VNC</b>	Visual navigation chart
<b>VRP</b>	Visual reporting point

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**Cover:** Meridian Energy's Te Āpiti Wind Farm near Palmerston North.  
Photo courtesy of Meridian Energy.

**Our thanks to Massey University School of Aviation, particularly Paul Kearney and Jordan Williams, for specially taking many of the updated photos for this revision.**

See the CAA website for civil aviation rules, advisory circulars, airworthiness directives, forms, and more safety publications. Visit [aviation.govt.nz](http://aviation.govt.nz).

Every effort is made to ensure the information in this booklet is accurate and up-to-date at the time of publishing, but numerous changes can occur with time, especially in regard to airspace and legislation. Readers are reminded to obtain appropriate up-to-date information.

# Introduction

The Manawatū is one of the busiest and most complex pieces of airspace in New Zealand as it's home to the following aerodromes:

- Feilding, an active GA aerodrome with more than 100 locally-based general aviation aircraft;
- Foxpine, an aerodrome for general aviation;
- Ohakea, which has intensive military operations;
- Palmerston North, which has significant scheduled air transport operations, as well as Massey University School of Aviation, and Fieldair Engineering;
- Whanganui, with scheduled air transport, intensive fixed-wing flight training (NZICPA), two agricultural operators (fixed-wing and rotary), helicopter flight training, and an aero club.

There are also chartered and non-chartered private airstrips and helicopter landing areas in the region.

In addition, the Manawatū is the major transit route from the top half of the North Island to Wellington, and to the South Island for general aviation traffic travelling in either direction. The geography of the terrain tends to funnel traffic going south. To the north, the controlled airspace of Ohakea and Palmerston North can have a channelling effect on traffic.

Looking towards runway 07 at Palmerston North aerodrome.

Photo courtesy of Massey University School of Aviation/Jordan Williams.



This Good Aviation Practice (GAP) booklet is designed to give pilots information, tips, and warnings about operating in, out, and around this airspace. It must be supplemented with up-to-date charts, AIP Supplements, and NOTAMs before flying, along with sufficient ground-based study if unfamiliar with the airspace.

For the purposes of this publication, the 'Manawatū' is defined as the roughly triangular area on the west coast of the North Island, from Levin in the south, following the coast north to Whanganui, east to the main ranges, then south along the ranges past Palmerston North, including the Manawatū Gorge.



# Overview

## Geography

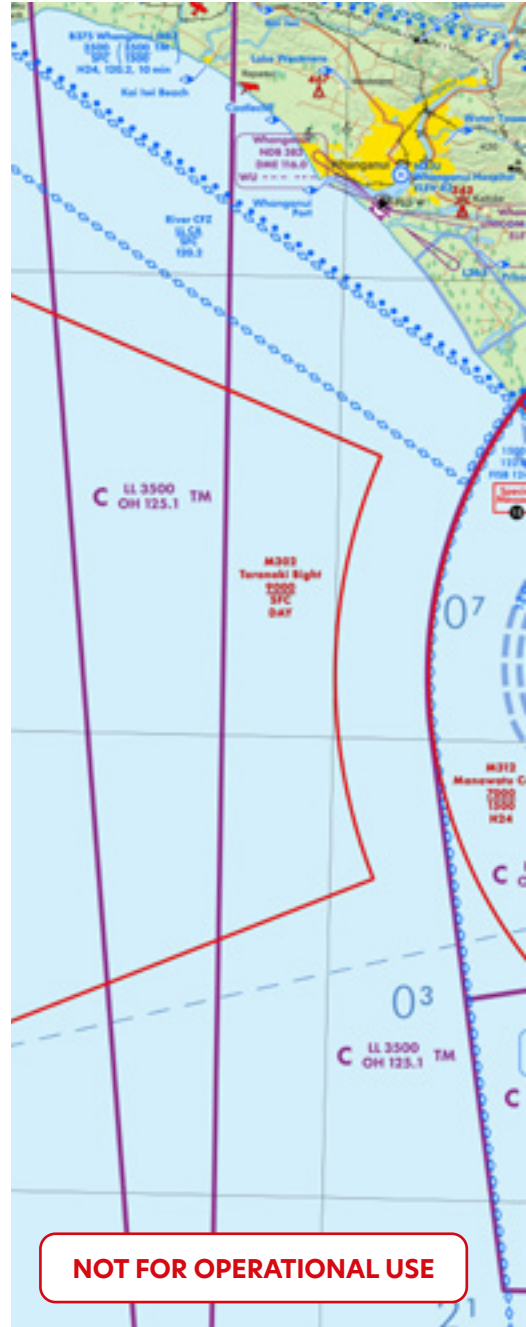
The Manawatū region is bounded on the eastern side by the Tararua and Ruahine Ranges. These are major features with elevations over 5000 feet. The Manawatū Gorge is the low point separating the two mountain ranges, and acts as a natural transit lane between the east and west coasts.

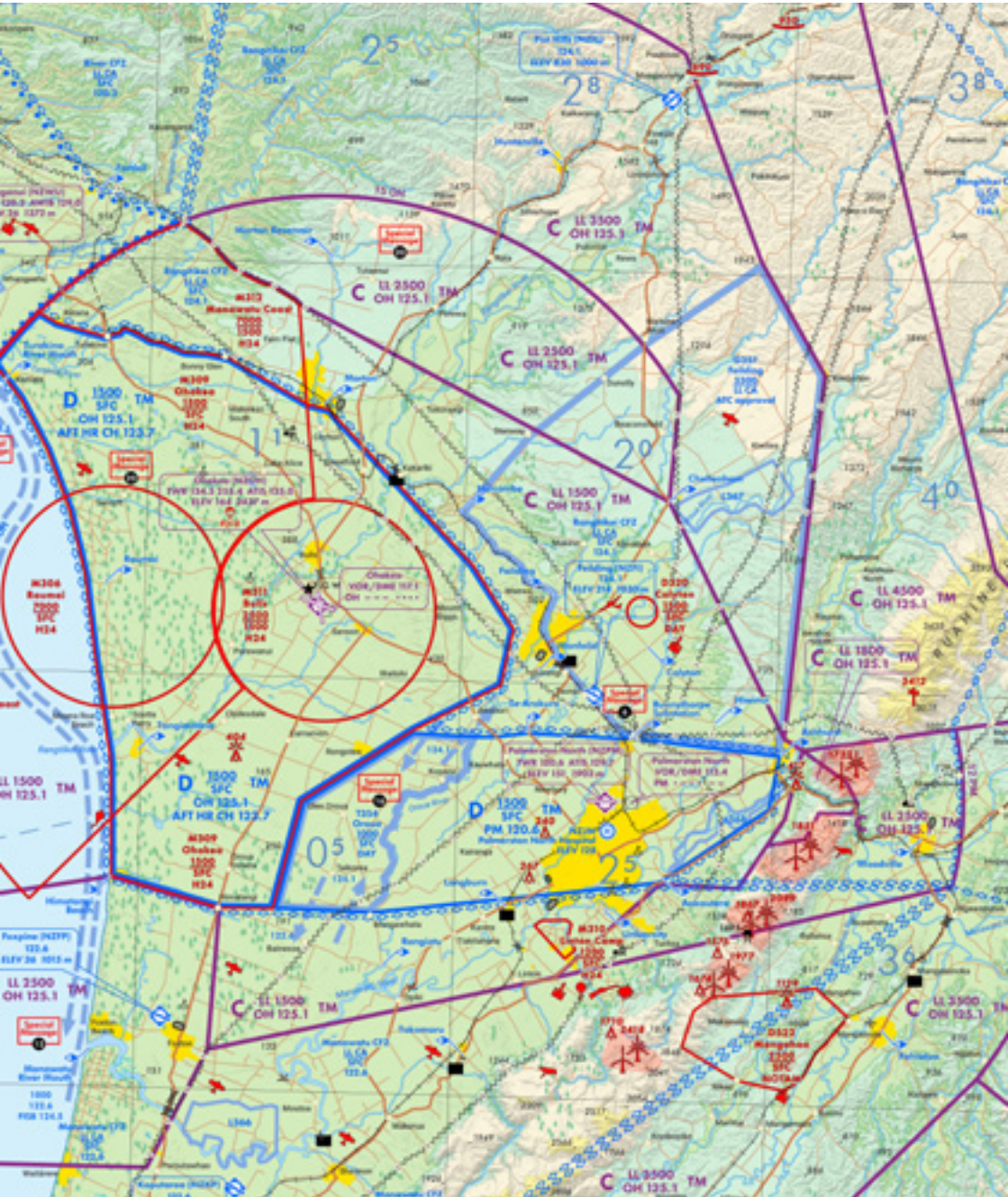
Wharite Peak, on which is a large transmission tower (elevation 3412 feet), is a prominent mountain feature immediately to the north of the Gorge / southern end of the Ruahine Range. A number of wind farms have been erected on the ranges from Wharite Peak to south of Palmerston North.

Most of the Manawatū is a gently rolling plain of mostly farmland, with elevations of 300 to 400 feet. To the north, the terrain gradually becomes more rugged and rises towards the Central Plateau. On the western side, the Manawatū is bounded by the coast, which curves quite significantly. Near Foxton, an aircraft flying 'north' along the coast has a magnetic track of about 340 degrees. By the time the aircraft reaches Whanganui, the track is 300 degrees - closer to west than north. This can, on occasion, confuse pilots who may expect that the coast still runs north-south.

The coast and mountains make big picture navigation along those routes reasonably easy. On a good visibility day, Mount Taranaki (or Mt Egmont) may be visible out to the west, and the mountains of the Central Plateau to the north. To the east lie the Ruahine and Tararua Ranges with the low point at the Manawatū Gorge.

The lack of prominent features in the middle of the coastal plain does, however, make it critically important that pilots navigate accurately to avoid inadvertently entering Ohakea or Palmerston North controlled airspace.





Excerpt from Visual Navigation Chart C2, showing the Manawātū area.

## Climate

The climate in the Manawatū can be summed up in one word - windy. The wind farms on the eastern ranges weren't built there just to improve the view! The prevailing wind is westerly and strongly dominates the region. Mechanical turbulence can be a significant factor for low-level flight (below about 2500 feet AMSL). Strong lee wave activity, with turbulence and downdrafts, is common east of the ranges, and is a particular factor when transiting the Manawatū Gorge. Conversely, occasional strong easterly winds can funnel through the Gorge and cause significant turbulence west of the ranges.

Due to both terrain and local buildings and trees, windshear and turbulence can be a common feature on final approach into Palmerston North in strong easterly or westerly wind conditions. Strong wind shear can also be experienced at Foxpine in easterly conditions. The wind and turbulence can make accurate flying difficult at times, and can also lead to significant drift angles when navigating. Similarly, there are large variations in groundspeed between upwind and downwind flight.

Very low cloud and fog are relatively rare in the Manawatū and occur only a few times a year, mostly in winter. A stratus or stratocumulus overcast is, however, a common occurrence, with ceilings of around 2500 feet being the norm. While this is not a problem for flights in the Manawatū, it may indicate that flight into the Central Plateau could be limited by lowering cloud. Haze is often encountered below the cloud layer, with visibility reduced to below 10 km at times.

This also complicates navigation when away from the major landscape features. Keep this in mind if your planned route is to, or from, the north.

Heading south either from the Desert Road VFR corridor or to the west of the mountains from Taumarunui, you can encounter low cloud over very inhospitable terrain with few, if any, clearly identifiable visual references. Here, maintaining 3000-4000 feet AMSL is desirable, being mindful of your location so as not to inadvertently enter Ohakea CTA airspace. Coming from the south, the same holds true as a climb is required to maintain adequate ground clearance.





# Airspace

## General

Generally, you require a clearance to operate above 1500 feet AMSL in the Manawatū area, as this is controlled airspace. The main exceptions to this rule are to the south of Foxpine in the Manawatū CFZ, and to the north-east of Feilding aerodrome in the Feilding GAA, when it's active.

The Ohakea and Palmerston North control zones (CTRs) are Class D airspace. Above this, the Ohakea CTA is Class C. All permanent controlled airspace is ADS-B mandatory.

## Surveillance coverage

There's complete ADS-B coverage over the whole of the Manawatū to low-level. Primary surveillance radar coverage is, however, quite limited at low-level, and near non-existent below 1500 feet. It's therefore very important that pilots select transponders ON, with Mode C or S (or just ALT mode to be correct) selected. Even if pilots do not require an ATS surveillance themselves, having the transponder on will greatly assist ATC in providing information to other aircraft.

Operating a transponder will also enable nearby aircraft equipped with CDTI (cockpit display of traffic information) to know where you are. Note that although Whanganui is unattended, the MBZ is transponder mandatory airspace above 1500 feet AMSL.

Flying over the windmills.

Photo courtesy of Massey University School of Aviation/Jordan Williams.



## Common frequency zones in the Manawātū

CFZs are established to encourage pilots to use a single VHF frequency allocated for the zone. Pilots should transmit position, altitude, and intentions relevant to prominent reporting points or features at entry, or at other times for traffic safety.

A CFZ is non-mandatory airspace and advisory in nature, i.e. airspace not designated under Part 71 *Designation and Classification of Airspace*. Pilots should maintain a good lookout at all times as it's often necessary for aircraft to be on a variety of frequencies in any uncontrolled airspace, for example: when preparing to join an aerodrome circuit

- en-route aircraft on FISCOM frequency
- aircraft entering or leaving controlled airspace on an ATS frequency
- glider operations
- when changing frequency prior to reaching the boundary of the next CFZ.

Rangitikei CFZ 124.1 MHz (“Rangitikei traffic”) is used for transiting or training aircraft operating in the CFZ and also for the Oroua VFR transit lane. This is the same frequency as the former Feilding CFZ. Pilots should address “Feilding traffic” only if they’re intending to join or operate at the airfield – otherwise use “Rangitikei traffic”.

Pilots should also be aware that some NORDO aircraft, including microlights, can be operating within a CFZ, so pilots should maintain a good lookout at all times. The same applies to the River CFZ at Whanganui, which uses the frequency 120.2 MHz (“River traffic”).

## Manawātū Common Frequency Zone

The Manawātū CFZ (122.6 MHz) was established to enhance traffic awareness for aircraft operating south of Palmerston North. Activity in this area is intensive. It's used daily by training aircraft operating from Palmerston North and Foxpine.



When weather dictates, Feilding-based training aircraft also come south to this area and there can also be training aircraft from Paraparaumu. Aircraft transiting between Paraparaumu and Palmerston North also use it regularly.

The CFZ extends up the coast past M306 on the same frequency. There's intensive flight training happening in this area from aircraft departing Palmerston North, Ohakea, Foxpine, and even Paraparaumu. Pilots should turn all lights on and keep a very good lookout, and listen out.

This area also contains L366, the low flying zone just to the south-east of Foxpine.

Transiting traffic may conflict with aircraft in the training areas to the south, with aircraft changing altitude with manoeuvres (stalls, turns, engine failure exercises, etc). As always, keep your radio calls brief and clear, stating position and intentions.

## Feilding General Aviation Area (G357)

The Feilding GAA is an area to the north-east of Feilding used primarily for training operations, and for gliding in the weekends. Gliders fly up to 5500 feet in this area, and some are equipped with ADS-B, but not all. Further out, gliders can be expected to be seen flying below 500 feet above the surface along the Ruahine ridge.

The GAA is activated only with the approval of ATC, so the status must be checked before entering the area. ATC units (Ohakea Approach, Ohakea Tower, or Palmerston North Tower) can advise you of the status of the GAA. If the GAA is not active, pilots wanting to enter the part of the GAA that's in Ohakea CTA airspace must obtain a clearance from "Ohakea Approach" (125.1 MHz).

## Oroua VFR transit lane

The Oroua VFR transit lane (T354) was established to enable aircraft to transit from Feilding to the south and vice versa without having an ATC service. It's bounded on the west by the Ohakea control zone, and on the east by the Palmerston North control zone. The transit lane is restricted to surface (SFC) to 1000 feet AMSL.

Aircraft approaching Ohakea or Palmerston North can be above you. It's therefore essential that aircraft stay within the lateral and vertical confines of the transit lane. Pilots should also operate to the right within the lane, in accordance with the guidance tracks on the visual navigation charts, to reduce the risk of reciprocal traffic conflicts. See also page 26.

[Oroua VFR transit lane \(T354\) looking south.](#)  
Photo courtesy of Massey University School of Aviation/Jordan Williams.



## Whanganui Mandatory Broadcast Zone

Extending from the surface to 3500 feet (transponder mandatory above 1500 feet), the Whanganui MBZ (120.2 MHz) lies between the Rangitikei CFZ and Ohakea's airspace to the east and Waiinu Beach in the west. The MBZ caters for extensive flight training operations, and position reports must be made on entry, when joining the Whanganui Airport circuit, runway entry, and at regular 10 minute intervals when operating within the MBZ.

With a high number of training aircraft within the MBZ, aircraft transiting through the area need to liaise with pilots training within the MBZ to ensure adequate separation is maintained. Accurate position reports referencing visual reporting points will aid with aircraft separation.

Transiting aircraft following the coastline should transit north-west or south-east at least 2NM seaward of the coast if below 2000ft to avoid the circuit. Similarly, pilots should avoid overflying the airfield below 2000ft.

If equipped, landing or anti-collision lights should be switched ON as an added safety measure. Non-radio equipped (NORDO) aircraft are not permitted to operate within the MBZ unless another party can broadcast their position and intentions on their behalf.

To aid with traffic separation and to facilitate their approach, IFR aircraft should make an MBZ call prior to entry to determine airfield activity, provide details of their intended approach method, and advise their ETA. Pilots of IFR aircraft need to clearly communicate their intended flight path and liaise with other aircraft operating within the MBZ. Upon request, when on watch UNICOM may provide information from traffic reports that aircraft have made to UNICOM.



Kairanga airstrip. Feilding can be seen in the top left of the photo.

Photo courtesy of Massey University School of Aviation/Jordan Williams.



Kairanga airstrip

## Ohakea Military Operating Areas (M309, M311, M312, and M306)

A large area of central Manawatū is dominated by RNZAF military operating areas (MOAs). These MOAs are all active 24 hours, and approval is required to enter the areas. Note: Specific procedures apply for transiting M306 seawards of the coast. See page 22.

Civil aircraft will not normally be cleared to enter any of the MOAs unless there's a good reason to do so.

Ohakea Tower is normally staffed 0500 to 2200 (2230 on weekdays). The tower is normally 'on watch' / 'open' 0730 to 1730 weekdays. But, check ATIS to be sure. Outside those hours, the tower may be open for special events, or if Ohakea is being used as an alternate by civil commercial aircraft. When Ohakea Tower is off watch, access to and from the MOAs is through "Ohakea Approach" on 125.1 MHz.

### **M306 Raumai**

The M306 range is used extensively by the RNZAF for weapons firing, demolition, and low-level aerobatic training. When active, it extends seawards of the coast by 4NM and must be avoided.

Inland of the coast is a military low flying area. Helicopters and fixed-wing aircraft operate almost continuously from ground level up to 1500 feet and above. Military aircraft also operate above the sea out to 15NM from Ohakea, 2000 feet and above. Make sure you remain seawards of the coast and 1500 feet or below at all times.

The Raumai weapons range is easy to spot. It's a large triangular patch of sand dunes surrounded by pine trees. There are two 50-foot high towers on the range. If active, it must be avoided by a minimum of 4NM. Pilots regularly underestimate what 4NM looks like, particularly when at 1500 feet and out over the sea.

Information on the active, or otherwise, status of M306 is broadcast on the Ohakea Flight Information Service Broadcast (FISB) 124.5 MHz. It provides guidance information, and should be listened to prior to transiting north or south via the coast. If in doubt about your position in relation to M306 or its status, call "Ohakea Approach" (125.1 MHz).



Raumai weapons range looking north-west.  
Note the explosion.



Runway 25 at Palmerston North aerodrome.  
Photo courtesy of Massey University School  
of Aviation/Jordan Williams.

# Aerodromes

## Palmerston North

Palmerston North is the major civil aerodrome in the Manawatū, with regular scheduled air transport operations and considerable flight training. Night freight operations also take place at Palmerston North. Joining and circuit procedures are contained in *AIP New Zealand*, Vol 4. Ensure you have studied these procedures before operating at Palmerston North.

The aerodrome is quite close to the Tararua Ranges. In strong westerly winds, operators will occasionally request approaches for RWY 07 (and then circle for RWY 25) to avoid flight over the ranges.

The grass runways and taxiways are often only usable from October to April. The status of the grass runway is promulgated on the ATIS. The airport also issues a NOTAM to advise if grass runways and/or taxiways are closed.

ATC is usually available through to late in the evening.

However, the aerodrome can see a lot of activity when ATC is off watch (such as air ambulance and freight operations, or night flying training). So, it's critical to be making radio calls, especially during this time.

The Grassroots Trust Rescue Helicopter is based at Palmerston North Hospital which is in the Palmerston North control zone. ATC clears the helicopter directly to and from the hospital. Meanwhile, air ambulance services frequently operate in and out of the aerodrome.

Linton Military Camp is just to the south of the Palmerston North control zone. Linton has a military operating area (M310) for explosives, army training, and UAS activities. It's active 24 hours a day from SFC to 1200 feet AMSL. M310 must be avoided at all times.

## Feilding

Feilding has training and private operations. The aerodrome has a sealed strip as well as a large grass area. The sealed strip is relatively narrow but has been widened to 18 metres. So, there's potential for visual illusions, which could result in a late flare or heavy landing for those pilots used to a wider strip.

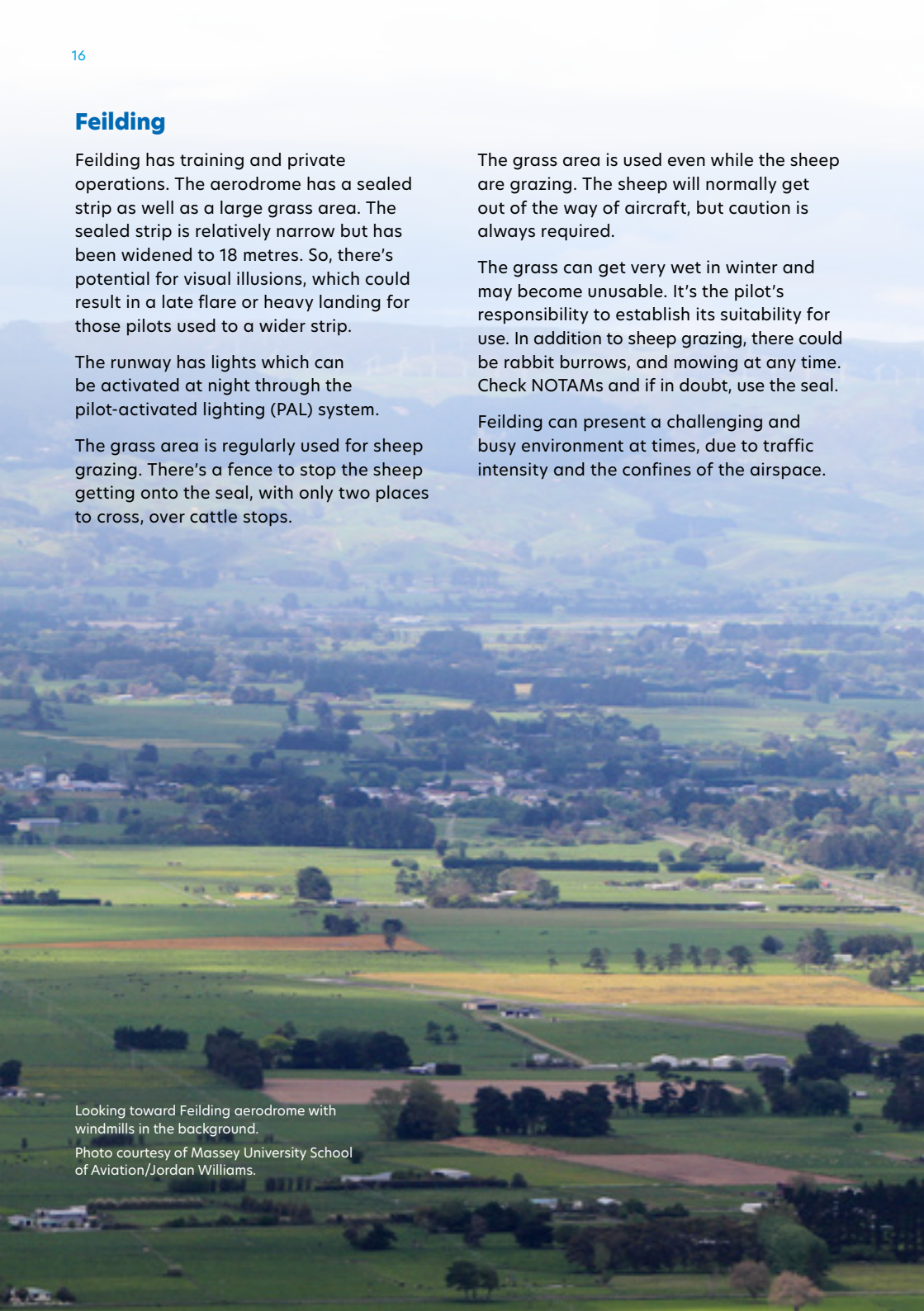
The runway has lights which can be activated at night through the pilot-activated lighting (PAL) system.

The grass area is regularly used for sheep grazing. There's a fence to stop the sheep getting onto the seal, with only two places to cross, over cattle stops.

The grass area is used even while the sheep are grazing. The sheep will normally get out of the way of aircraft, but caution is always required.

The grass can get very wet in winter and may become unusable. It's the pilot's responsibility to establish its suitability for use. In addition to sheep grazing, there could be rabbit burrows, and mowing at any time. Check NOTAMs and if in doubt, use the seal.

Feilding can present a challenging and busy environment at times, due to traffic intensity and the confines of the airspace.

An aerial photograph showing the Feilding aerodrome in the foreground, with a mix of green grass and brown earth. The background features rolling green hills, scattered trees, and a few buildings, with windmills visible in the distance under a clear sky.

Looking toward Feilding aerodrome with windmills in the background.

Photo courtesy of Massey University School of Aviation/Jordan Williams.



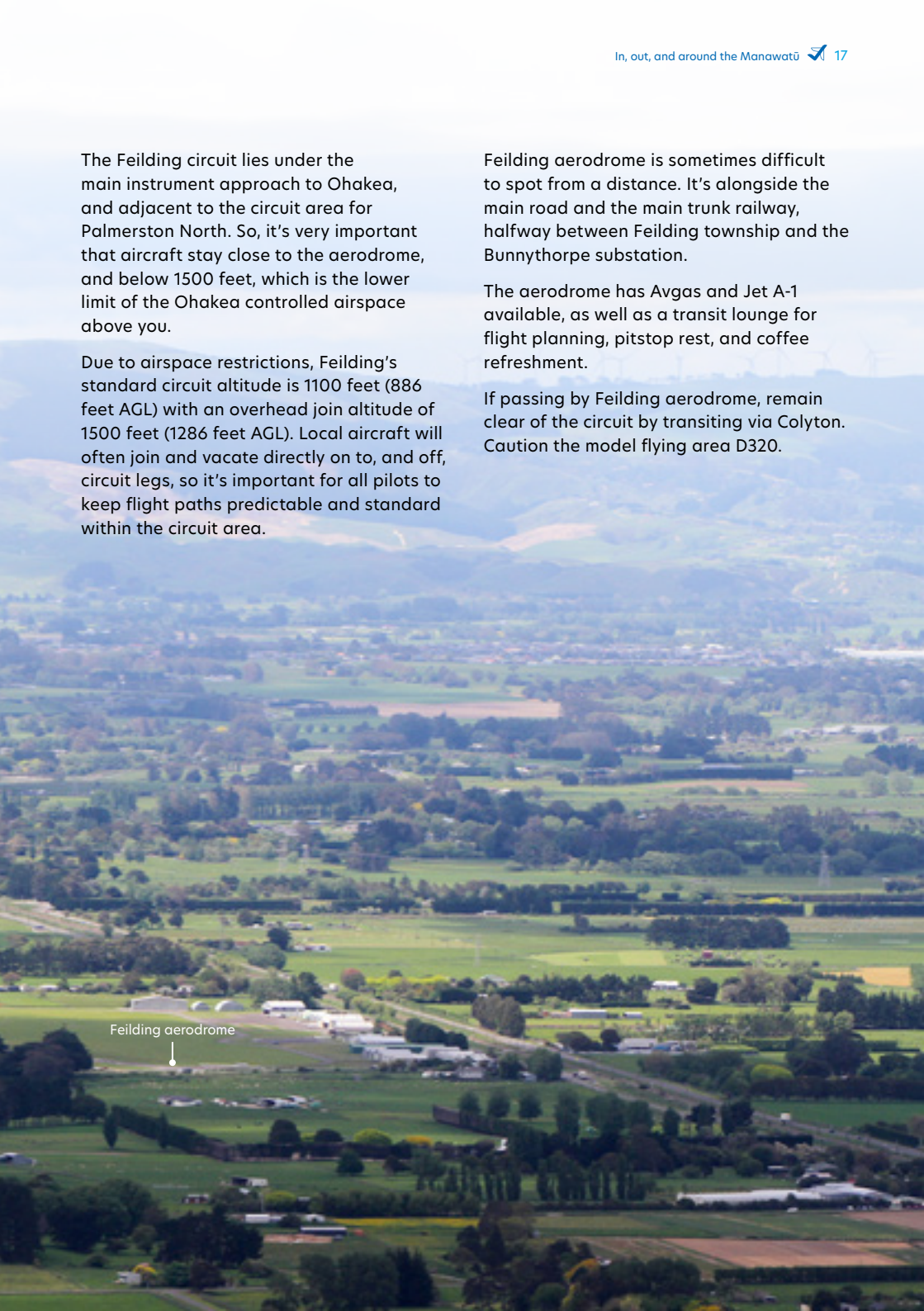
The Feilding circuit lies under the main instrument approach to Ohakea, and adjacent to the circuit area for Palmerston North. So, it's very important that aircraft stay close to the aerodrome, and below 1500 feet, which is the lower limit of the Ohakea controlled airspace above you.

Due to airspace restrictions, Feilding's standard circuit altitude is 1100 feet (886 feet AGL) with an overhead join altitude of 1500 feet (1286 feet AGL). Local aircraft will often join and vacate directly on to, and off, circuit legs, so it's important for all pilots to keep flight paths predictable and standard within the circuit area.


Feilding aerodrome is sometimes difficult to spot from a distance. It's alongside the main road and the main trunk railway, halfway between Feilding township and the Bunnythorpe substation.

The aerodrome has Avgas and Jet A-1 available, as well as a transit lounge for flight planning, pitstop rest, and coffee refreshment.

If passing by Feilding aerodrome, remain clear of the circuit by transiting via Colyton. Caution the model flying area D320.



Feilding aerodrome



## Whanganui

With an average of 5000 movements per month, Whanganui aerodrome is one of New Zealand's busiest uncontrolled aerodromes.

Intensive flight training from the local pilot training academy (NZICPA), scheduled air transport, aeromedical, helicopter, and agricultural operations take place. Both VFR and IFR operations are common here. IFR pilots are required to supplement IFR calls with VFR position information. If a VFR pilot is unsure of an IFR aircraft's call or position, they may ask for clarification in plain language.

Whanganui aerodrome is within the Whanganui MBZ (120.2 MHz) and operates a UNICOM service on the same frequency. UNICOM can provide pilots with known traffic and aerodrome information upon pilot request. Refer to *AIP New Zealand*, Vol 4, for UNICOM's hours of service.

Extensive flight training takes place to the east and west of the aerodrome within the MBZ, with paragliding regularly taking place around the Castlecliff and Kai Iwi cliffs.

Aircraft joining overhead must be aware that the helicopter circuit is flown at 800 feet on the non-traffic side of the fixed-wing circuit in use. Fixed-wing aircraft must not descend below 1000 feet on the non-traffic side.



Whanganui aerodrome


As well as the main sealed strip, there are three grass vectors, although these may be closed in the winter due to surface conditions – pilots should check NOTAMs carefully.

Strong crosswinds are often a feature at Whanganui, with sea breezes being a regular afternoon event. However, the grass cross runways do give options for general aviation aircraft. Note that there can be turbulence and wind shear crossing the coastal sand dunes when using the cross vectors.

Not surprisingly, birds can be a significant hazard at Whanganui, given its location between the coast and the Whanganui River estuary.

Be aware of the gently rising terrain on the approach to RWY 29, which can lead to a false perspective and ending up high on approach.

A memorandum of understanding (MOU) exists between regular Whanganui airspace users detailing mutual airspace procedures. The MOU can be sourced from [whanganuiairport.co.nz](http://whanganuiairport.co.nz).



Looking south-east along the coast from Whanganui. If you're tracking along the coast and reporting your position, check your heading. While you might think you're tracking north or south, you're actually heading more to the north-west or south-east, respectively.



Looking south-west with Foxton township on the left.

## Foxpine

Foxpine is an aerodrome adjacent to the Foxton Racecourse. Pilots often have difficulty finding Foxpine and it's sometimes easier to look for the racecourse. The aerodrome is often busy with flight training activity.

The Foxpine radio frequency is the same as that for the Manawatū CFZ (122.6 MHz).

There are tall pine trees on the approach for RWY 27, which means there is a significantly displaced threshold for that runway.

Although the runway is long, make sure your approach is well under control to avoid the potential for running off the end of the runway.

The aerodrome plate (*AIPNZ*, Vol 4) for Foxpine gives advice on an offset approach for RWY 27 and for departure for RWY 09. Turbulence and wind shear has reduced at the aerodrome with the reduction in trees on the side of the strip.

The sandy ground at Foxpine is well-drained, and the surface conditions normally remain good all year. The grass strip is always mowed so the aerodrome is normally always available for use.

## Ohakea

Civil operations at Ohakea require the prior permission of the RNZAF. (M309 is co-incident with the Ohakea CTR so entry approval is required.) IFR training, particularly the use of the ILS, may be permitted, subject to RNZAF training requirements and ATC workload.

VFR transits (i.e. no landing) may be approved at times by Ohakea Tower on 134.5 MHz where there is sufficient reason for the request, and subject to RNZAF activity.

Training approvals will normally require that the aircraft does not land, but instead executes a missed approach at decision altitude. If Ohakea Tower is off watch, all flight below 1500 feet must be conducted in VMC.

For approved operations at Ohakea, use the procedures found in *AIP New Zealand*, Vol 4.



Ohakea, looking south-east.

# Transit routes

## Coastal (Foxton to Whanganui and return)

The coast between Foxton and Whanganui is one of the busiest transit routes in the country. On a fine day, particularly during the weekend, it would be rare not to see an aircraft in transit somewhere along the coast. Seawards of the coast, below 1500 feet is uncontrolled airspace, with the single exception of the weapons range at Raumai M306.

A FISB facility is available to advise the status of M306. The FISB frequency is 124.5 MHz. Pilots should listen to the FISB broadcast at or before Himatangi Beach (northbound), or the Whangaehu River mouth (southbound).

If the broadcast advises that the weapons range is not active, pilots may transit through M306, seawards of the coast below 1500 feet, without a clearance from "Ohakea Approach". The range can be activated with 20 minutes notice, so pilots must vacate M306 within 20 minutes of entering it.

If the FISB indicates that the range is active, pilots must remain clear. Assistance can be obtained from "Ohakea Approach" on 125.1 MHz.

The coastal area is part of the Manawatū CFZ. Pilots should be monitoring the CFZ frequency (122.6 MHz) unless they are with Ohakea (125.1 MHz).

There is a VFR advisory route (VNC C2) showing different heights for northbound and southbound traffic.

## *Possible sources of confusion*

When flying both north and south along the coast, it's possible to mistake your position due to the similarities of the river mouths in the area.

Northbound, it's easy to confuse the Manawatū River and the Rangitikei River. Both have a small seaside settlement a few miles to the south (Waitārere and Himatangi Beach respectively). Both have townships immediately north of the river mouth (Foxton Beach and Scotts Ferry, though Scotts Ferry is much smaller). The main visual difference is that the Rangitikei River mouth has the township of Tangimoana immediately to the south, while the Manawatū River has no such township.

Pilots must correctly identify their position so they don't inadvertently enter M306 by being further north than they think they are.

Southbound, a similar situation exists with the Whangaehu and Turakina Rivers, although Turakina River has the small settlement of Kotiata on its southern bank, while there is no settlement on the Whangaehu River mouth.

Note that as of 30 November 2023, the Whangaehu River Mouth VRP has been removed, and a new VRP for Turakina River Mouth has been added.



Manawātū River mouth, looking north along the coast.



Whangaehu River mouth, looking south along the coast.



Rangitikei River mouth, looking north.



Turakina River, looking south.

## Whanganui to Feilding (and return)

A direct flight between Whanganui and Feilding is not possible without transiting through Ohakea airspace. It's unlikely that a request to do so would be granted during weekdays because of the extensive military operations in the area.

The more practical route is via Fordell, north of Marton township and Halcombe. The maximum transit altitude clear of controlled airspace varies, from 3500 feet around Fordell, to 2500 feet north of Marton, and 1500 feet from Marton south to Feilding.

The north-eastern boundary of M309 follows the railway line from Turakina tunnel to Marton.

Note that the Marton Reservoir VRP is well to the north of Marton. It's in a valley but easy to spot.

Note that there are two sets of power lines from Whanganui to Bunnythorpe. You must use the northern set as your navigational aid. The southern set will take you into Ohakea and cause an airspace incident.





Another navigation aid in good visibility is Wharite Peak at the southern end of the Ruahine Range. On the peak is a large transmission tower (elevation 3412 feet).

A track from Marton towards Wharite, 1500 feet or below, will keep you clear of controlled airspace and track you neatly towards Feilding.

Looking east, from Fordell towards Wharite Peak, showing power lines.

## Feilding to Palmerston North

The published VFR arrival and departure procedures at Palmerston North are designed to keep aircraft clear of the Feilding circuit.

If departing Feilding to Palmerston North, and runway 25 is in use, contact Palmerston Tower 2-3NM north of Hiwinui, and expect to be issued an arrival procedure. If runway 07 is in use, contact Palmerston Tower 2-3NM north of Manfield/Te Arakura, and expect to be issued an arrival procedure.

The biggest trap for pilots is the short distance between the two aerodromes, and thus the potential to get behind with navigation and radio calls.

The Palmerston North Automatic Terminal Information Service (ATIS) can usually be heard on the ground at Feilding, so obtain this information before departure - remembering to go back to the Feilding frequency. Do not call Palmerston Tower right on the control zone boundary as ATC may not be able to issue joining instructions immediately, and you may need to turn away from the airspace.

Make sure you're familiar with the published VFR arrival and departure procedures, as well as the frequencies for Palmerston North. It's very important that you do not enter the Palmerston North control zone without a clearance.



## Foxton to Feilding (Oroua VFR transit lane)

The Oroua VFR transit lane (T354) allows aircraft to transit between Foxton and Feilding without reference to ATC. It's active during daylight hours, from surface to 1000 feet AMSL, and the flight rules are Class G. Aircraft within the transit lane should broadcast their intentions and listen out on 124.1 MHz.

The transit lane eastern boundary is the Oroua River which is also the Palmerston North CTR/D boundary below 1000 feet AMSL. The western boundary from the south runs along a road to a junction west of Glen Oroua and then a line to the east of Rongotea and just to the east of Awahuri. Pilots need really good situational awareness to avoid flying into either M309 (Ohakea MOA) on one side and the Palmerston North CTR/D on the other.

Flight along a straight line from Foxton township to Feilding township will keep aircraft within the transit lane. (The magnetic track is 025 degrees Foxton to Feilding, or 205 degrees Feilding to Foxton). Note that a straight-line flight from Foxpine aerodrome to Feilding aerodrome (e.g. if using GPS) will not stay within the transit lane. Avoid overflying the township of Rongotea - it's well within the Ohakea MOA. The Kopane aerodrome is on the eastern boundary of the Oroua VFR transit lane, close to the Oroua River.

The township and major road intersection of Awahuri marks the north-eastern end of the transit lane, but can be difficult to spot until nearly overhead. Awahuri lies on low-lying ground immediately south-east of the hills leading to Mount Stewart (elevation 430 feet). Mount Stewart is on the road between Awahuri and Sanson.

When travelling south from Awahuri, a heading towards Kapiti Island (if visible in the distance) will keep you within the transit lane.



Awahuri, looking north-east towards Wharite Peak.



Awahuri, looking north.






## Manawatū Gorge

The Manawatū Gorge is frequently used to transit the ranges between the west and east coasts. There are a number of potential hazards in the area. The most obvious are the wind farms along the ranges, some of which are hundreds of feet tall. Strong winds, turbulence, and significant updrafts and downdrafts, are features of this area.

Pilots must ensure sufficient height is available for escape routes. An instrument approach to Palmerston North tracks above the Gorge, so pilots must be careful not to inadvertently climb into controlled airspace above without a clearance. Also, the Gorge tends to funnel aircraft along a narrow flight path at a similar height, so be on the lookout for other traffic, wires, and similar hazards.

Approaching the ranges from the western side and clear of the Palmerston North control zone, the lower limit of controlled airspace is initially 1500 feet. There is then a sector with a lower limit of 1800 feet immediately over the Gorge itself. This is to allow aircraft to maintain a minimum of 500 feet of ground clearance before crossing the ranges, and is constrained by instrument procedures for Palmerston North. East of the Gorge, the CTA lower limit increases to 2500 feet.

There are good tracking features available to pilots who wish to remain clear to the east of the Palmerston North control zone.



Looking over Ashhurst towards the Manawātū Gorge. To the upper left of the photo, the construction of the Manawātū Tararua Highway can be seen.

Photo courtesy of Massey University School of Aviation/Jordan Williams.

All aircraft transiting the Gorge area are advised to make a position report on 124.1 MHz (“Rangitikei traffic”). The north-eastern boundary of the CTR commences at the midpoint of Ashhurst township (cutting the corner will infringe the Palmerston North CTR). It then tracks a line from Ashhurst towards the surveillance sensor west of Ballance (this is the white dome-shaped building clearly visible on the ranges south of the Gorge and a dip in the ranges locally called the Pahiatua ‘gap’). Just south of the Gorge the eastern boundary of the CTR follows the road that parallels the Manawātū River to Aokoutere.

Pilots who are unsure of their position while transiting the Gorge, are advised to contact Palmerston North Tower (120.6 MHz) if below 1500 feet, or “Ohakea Approach” (125.1 MHz) if above 1500 feet.

Those pilots who wish to cross east to west, or the other way, but not use the Manawātū Gorge route can, if weather permits, cross south of the Balance surveillance sensor on the Tararua Range at or below 3500 feet and remain clear of controlled airspace. If tracking south-west, remain clear of Ohakea airspace and note that the Manawātū CFZ starts to the west of the range.

If crossing the range or operating in this area, pilots should also note D522–Mangahao. This danger area is SFC to 2500 feet AMSL, and is activated by NOTAM and used for operating unmanned aircraft (drones). When active, operators monitor 119.1 MHz.

# Local operations

With intensive flight training, agricultural, air ambulance, and air transport operations in the area, consider contacting one of the principal operators, such as Massey University School of Aviation or NZICPA, to find out more about the areas and procedures in use.

There are also a number of charted and uncharted airstrips and helipads within the region. Frequent low-level agricultural operations take place from the uncharted airstrips at Kairanga (west of Palmerston North city) and Opiki (between the Rangiotu and Tokomaru VRPs). The aircraft operate across the Manawatū plains region. Generally, they fly at, or below, 500 feet AGL.

Microlights occasionally operate from the charted strip at Koputaroa just to the north of Levin. An agricultural helicopter operator is based near Marton.

The Grassroots Trust Rescue Helicopter is based at Palmerston North Hospital which is in the Palmerston North control zone. ATC clears the helicopters directly to and from the hospital.

Photo courtesy of Philips Search & Rescue Trust.

There are also private helicopters based in the Pohangina Valley, and a fixed-wing agricultural operator at Hiwinui (just west of Ashhurst).

To the south, there can also be training and recreational operations near Ōtaki and the Ōtaki strip. These areas are just inside the Tararua CFZ which is to the south of the Manawatū CFZ.



# Summary

The Manawatū is a busy and complex piece of airspace. However, there is nothing inherently difficult about operating there as long as pilots take the time to become familiar with the airspace, frequencies, and procedures in use.

## Key points to remember:

- Airspace above 1500 feet is mostly controlled, and a clearance is required;
- There are well-defined transit routes between all the airfields in the area;
- Straight line point-to-point navigation using GPS from airfield to airfield is not usually possible, and will cause aircraft to infringe controlled or restricted airspace;
- The transit routes that are available do tend to concentrate aircraft along particular corridors – keep a good lookout, turn on lights and transponders, make sure you're on the right frequency, and make traffic broadcasts as appropriate;
- If at all in doubt of your position, the safe option is to ask for assistance from "Ohakea Approach" on 125.1 MHz (noting that a transponder will be required for them to see you).

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**Good Aviation Practice**

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See the CAA website for civil aviation rules, advisory circulars, airworthiness directives, forms, and more safety publications.

To order publications such as GAPs and posters, go to [aviation.govt.nz/education](http://aviation.govt.nz/education).

**[aviation.govt.nz](http://aviation.govt.nz)**

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